

# MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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## Manufacturers' Record.

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BALTIMORE, NOVEMBER 18, 1898.

Messrs. John Stewart Walker & Co.,  
leading real estate agents and invest-  
ment brokers of Lynchburg, Va., in a  
letter to the Southern Farm Magazine,  
of Baltimore, say:

We have received very satisfactory re-  
turns from the many advertisements placed  
in your paper, and we think we prove this  
by always keeping an advertisement run-  
ning in your paper.

Other Southern real estate owners  
and operators will find the Southern  
Farm Magazine as profitable as an ad-  
vertising medium as have John Stew-  
art Walker & Co.

### The South's Opportunity.

The people of this country have de-  
cided to retire the free-silver issue, and  
even should the silver advocates win  
at the next Presidential election, the  
Senate being controlled by sound-  
money people, no free-silver bill could  
be passed for at least eight years. Un-  
der these circumstances even the most  
ardent silver advocate should drop this  
issue and permit the country to settle  
down to business.

The business men of all sections may  
now breathe more freely and plan for  
the future with more confidence than  
at any time since the silver question  
became an active issue in our politics.  
With this danger out of the way, with  
a rapid increase in our foreign trade,  
opening new markets for manufac-  
tured goods, with increased railroad  
earnings and a substantial basis for all  
business enterprises, the time has come  
for a steady advance movement in  
trade and industrial pursuits. There  
is every reason to believe that we have  
before us a period of far-reaching busi-  
ness activity and of tremendous ex-  
pansion in every line of manufactures.  
The South cannot afford to miss this  
opportunity. With renewed energy it  
should grapple with the problem of in-  
dustrial development, realizing that  
agricultural prosperity can only be se-  
cured through the upbuilding of indus-  
trial interests. As we extend our man-  
ufactures, open new mines, develop  
and make profitable our railroads, we  
create new markets for labor and new  
markets for the diversified products of  
agriculture. Then the overproduction  
of cotton would soon regulate itself and  
Southern farmers would find the pros-  
perity for which they have long looked.  
Let us turn our attention to business;  
let every energy be bent toward devel-

oping our vast and as yet scarcely  
touched natural resources, and, for-  
getting the past, press forward with  
tireless activity and determination to  
make this favored section the most pro-  
gressive and prosperous region on the  
face of the earth. This is in the power  
of the people of the South. Shall we  
rise to the occasion?

### Politics to the Rear.

In many parts of the South the news-  
papers are seeking to divert the minds  
of their readers from the demoraliza-  
tion of politics to the more profitable  
topics of commercial, industrial and  
agricultural progress. The following  
extracts from editorial columns illus-  
trate this movement:

The election is over. The people per-  
formed their political duty in choosing  
agents to carry on the work of government.  
Now the duty of the hour is to turn with  
fresh vigor and enterprise to their own pri-  
vate pursuits.—Lynchburg News.

While the campaign has not been charac-  
terized by great excitement and in most sec-  
tions of the country there has been com-  
plaint over the indifference and apathy of  
voters, there has been quite enough of  
weight and worryment over it to tire the  
people and make them enjoy the relief that  
comes with its close. Now let us all shake  
hands and unite in saving our crops and  
cleaning up our towns.—Dallas News.

After today Texas will be through with  
politics for awhile, and might profitably  
devote herself to pulling for some manufactur-  
ing enterprises. Other States are getting  
them.—San Antonio Express.

Politics does not measure a country's  
greatness; too much politics, indeed, is as  
bad as too little. It is the achievements of  
a people which measure their greatness; it  
is the cities they build, the lands they re-  
claim and cultivate, the forces of nature  
they learn to control, the energy and indus-  
try they display as recorded by the volume  
of business they transact, the public senti-  
ments which they support, the care and re-  
gard they manifest for the helpless and the  
afflicted, the protection they give the poor  
and the weak, the education they provide  
for youth, their accomplishments in science,  
in letters and in art—it is these which con-  
stitute the worth of a people, not politics.  
\* \* \* Let us go to work then with the  
spirit to stimulate agriculture, to stimulate  
industry and enterprise, to lend a hand to  
every honest effort to make Tennessee the  
fairest and most prosperous State in the  
Union, to make Nashville, favored in so  
many ways, the chief city in the Southern  
country.—Nashville American.

The election is over, and there will now be  
time to talk of something else. Most of  
our weekly exchanges have been filled with  
politics lately, which was all right and  
proper, but now we may expect them to  
talk about other matters, among which  
farming operations and prospects are most  
important.—Montgomery Advertiser.

This last suggestion is very wise, but  
it loses its force in that the Advertiser  
hardly follows the advice which it  
gives to its exchanges. Of twenty edi-  
torials, in which this is included, not  
more than six are free from the men-  
tion, more or less extended, of politics  
in one form or another. It is hoped,  
though, that the advice of all the dif-  
ferent papers may be adopted, and  
adopted at once, and that no untoward  
circumstances may be permitted to in-  
terfere with the healthy development  
of all the material interests of the  
South.

### Beware of the Greeks.

Referring to the proposed cut in the  
wages of operatives in certain cotton  
mills in the Augusta (Ga.) region, the  
Chronicle of that city says:

It is reported that labor organizers from  
New England are in Augusta advising with  
the local operatives and seeking to organize  
the workers in the Augusta mills. This  
may or may not be true. It is likely there  
may be individual cases of operatives who  
will quit work. There are some few, per-  
haps, who may find an opportunity to better  
their condition, and there are some persons  
in every large body of men who act in haste  
and repent at leisure. But it is likely that  
the great bulk of operatives will accept the  
cut as absolutely necessary, and while re-  
gretting it, will stick to their work and hope  
for better times in the future.

The eminently wise advice underly-  
ing these statements of the Chronicle  
may be supplemented by the direct ad-  
vice, not only to Augusta operatives,  
but to the wage-earners of the South,  
that they beware of so-called labor or-  
ganizers from the East. As the Manu-  
facturers' Record has pointed out from  
time to time, the Southern wage-earners  
have little to gain and much to lose  
in yielding to the siren beguilements of  
agitators from other sections. For  
years certain lines of industry in the  
North in competition with similar ones  
in the South have been handicapped by  
legislative interference in the relation  
of employers and employees. In the  
meantime, the industries of the South  
have been progressing upon the basis  
of unsurpassed natural resources and  
harmonious action of wage-earners and  
wage-payers. There have been excep-  
tions, of course, but disagreements  
have been nothing compared to those  
in other sections. There is no reason  
why existing conditions should be  
changed. Efforts to bring the labor sit-  
uation in the South down to the level  
of that in New England, if successful,  
will be to the detriment of Southern  
capital and Southern labor. The latter  
should not permit itself to be used as a  
cat's-paw to pull the chestnuts from  
the fire for New England operators.

### The Wrong Ox Gored.

The Decalogue may have a place in poli-  
tics—a quiet, unobtrusive place—but Penn-  
sylvania has declined to commit herself to  
any especial Commandment that might be  
construed as personal by her lawgivers.

It is claimed that the new legislature is a  
Quay legislature. Judging from the char-  
acter of some of the representatives elected  
in this corner of the State, it is anybody's  
legislature who is able to pay for owner-  
ship and willing to bear the stigma of pos-  
session.

The election returns for the city of Phila-  
delphia bear upon their face the proof of  
wholesale, desperate, unblushing fraud. No  
man can go over the figures and remain un-  
convinced. No honest man who belongs to  
the republican party or to any other party  
can reflect upon the commission and the con-  
sequences of such a criminal assault upon  
the right of a free people to govern them-  
selves without alarm for the future. Honest  
government has been murdered in the  
shadow of the Hall of Independence.

The rouser, repeater, personator or heeler  
has no respect for persuasion except the  
persuasion he understands—that of physical  
force and courage. Until the friends of or-  
der and of honest rule in Philadelphia shall  
man the polling places with men who are

not afraid to look into the mouth of a pistol,  
and who will not run away before the gleam  
of a knife, or the threat of a policeman, they  
will never get the upper hand.

These extracts from the editorial col-  
umns of the Philadelphia Record pre-  
sent a horrible picture of conditions in  
the Keystone State. We have nothing  
to do with the question of fact. The  
point to which we wish especially to  
direct the attention of such papers as  
the Philadelphia Press, New York  
Evening Post, New York Press and  
the Boston Transcript is the encourage-  
ment given by their conservative con-  
temporary, the Record, of a resort to  
physical force and courage at the polls  
as a remedy for crimes against law and  
order. A generation ago the courage of  
the South was exerted in that direction  
successfully, and ever since then  
papers of the class enumerated have  
found in that exertion a fruitful theme  
for sectional diatribes whenever the  
South was about to gain the position,  
industrially or commercially, for which  
it is so well fitted by nature. More re-  
cently the courage of North Carolina  
has been exerted at the polls against a  
black menace which has cursed that  
State for two years. Some of the breth-  
ren are fretting and fuming over the re-  
sult, although it will be far-reaching  
for good in its effects upon the coun-  
try. We commend to these the jere-  
miads of the Record, and suggest that  
the perturbed Cabinet of Mr. McKinley  
might find in Pennsylvania and Illinois  
a full vent for their feelings as to fed-  
eral interference. These two States  
seem to need attention more than  
North Carolina.

### Cause of Four-Cent Cotton.

A correspondent of the Augusta  
Chronicle gives the following as an il-  
lustration of the paralyzing effects of  
four-cent cotton:

A farmer came into my office and said:  
"Until this year I have paid up my debts  
and kept even with the world. I own 200  
acres of land, and have a wife and five  
young children. This summer a farm of 400  
acres belonging to a man in New York, and  
adjoining my own place, was offered to me  
for three years at a rent of seven bales of  
cotton a year. It was excellent land, and  
the offer so cheap I thought I could improve  
my condition in life by accepting it, and  
leased it. Meanwhile cotton has fallen, the  
negro tenants on that place have been  
broken up by debt and moved off, and I  
myself have lost a hundred dollars by the  
year's operations on my own place. My  
notes are now out for this cotton for the  
next three years. I can't find sub-tenants  
able to sustain themselves, nor am I able to  
equip any to work this rented land, and I  
see no way out of the pit into which I have  
fallen." A more cautious or deserving man  
does not live in Morgan county.

We take it that the experience of this  
farmer is an illustration, not so much  
of the paralyzing effects of the four-  
cent cotton, but of the cause of four-  
cent cotton. Warnings against a big  
crop, and consequently low prices, were  
uttered for months before the planting  
of the last season, and during the past  
year no man who read the papers could  
escape conviction of the unwisdom of  
extending his cotton operations. In the  
face of these warnings the Georgia



farmer saddled himself with new burdens, and now the blame is placed upon the result. He has our sympathy, but it is evident that he has himself dug the pit into which he has fallen.

### No Ground for Sectionalism.

The events of the last two or three weeks in North Carolina and South Carolina amount virtually to an admission on the part of the white people that they are unable to hold their own against the negroes except by punishing one crime by committing another; that law cannot be enforced against lawlessness, and that justice can be administered only by the mob.—New York Mail and Express.

How about Illinois, whose governor was so determined that negroes should not be brought into that State to work that he announced his decision, provided any more came, to meet the train "at the State line and shoot it to pieces with Gatling guns?" The Western Recorder, of Louisville, in referring to this, said:

Now the constitution of the United States expressly provides that the citizens of each State shall be entitled to all privileges and immunities of citizens of the United States. A citizen of Alabama has as much right to go to Illinois and go to work as he has to go to another place in Alabama. The constitution is plain on this point, and nobody pretends to deny it. It is plain, therefore, that Illinois is in rebellion against the United States. The quiet submission of the people of that State to the open and avowed defiance of the constitution by their executive is a virtual endorsement of that defiance.

This is a great deal worse than "nullification" in South Carolina, for that was simply a setting aside of a federal law, not a defiance of the constitution; and yet how prompt was Andrew Jackson, then President, in asserting and maintaining federal authority. This Illinois rebellion is a great deal worse than secession, for the seceding States claimed to be exercising their rights according to the constitution in setting aside federal authority and withdrawing from the Union, while in the case of Illinois nobody pretends that the State is acting according to the federal constitution. \* \* \* It is amazing that the chief executive of a State like Illinois should act in such fashion. It is more amazing that the people of Illinois should submit to it. It is more amazing still that the United States government should do nothing about it. \* \* \* If it had been simply a local mob that prevented the Alabama negroes from landing in Illinois the case would have been far different. But here the chief executive of the State uses his official authority and calls into action the State troops to deprive citizens of the rights guaranteed to them by the constitution of the United States. No such crime against liberty has ever before been committed in our country.

The Manufacturers' Record takes no pleasure in publishing such things or in criticising any section. It believes that every section has its own troubles and its own sins of omission and commission; but it simply invites attention to this criticism on the Governor of Illinois merely for the benefit of the bitter South-haters who are now seeking to enkindle sectional hatred for the express purpose of passing laws, the effect of which, they hope, will be to retard the South's industrial advancement. That there are men in this country so steeped in iniquity as to be plotting for this is unfortunately true, but the Manufacturers' Record has more faith in the great body of intelligent American citizens than to believe that these people will ever be permitted to succeed.

The Philadelphia Press published the other day a long screed headed "The Butchery of Colored Men." There was a quantity of words about the attitude of North Carolina democrats toward the criminal class in that State, but not a word about the criminal attitude of republican authorities in Illinois toward negroes seeking to earn an honest living there. We notice that the exiles

from North Carolina have been speeded on their way North wherever they have tried to pause in their flight. An invitation is hereby extended, and we hope the Press will second it heartily, to all characters displeasing to North Carolina or any other Southern State to make Pennsylvania and Philadelphia the field of their future operations. In their place the South will welcome any sturdy Pennsylvanians seeking to make their living honestly and fleeing from the wrath to come.

### SAVES THE PLANTERS MONEY.

**The Round-Bale Press at Weldon, N. C.—Free Ginning, Free Baling and No Insurance Charges.**

[Special Cor. Manufacturers' Record.]

Weldon, N. C., November 10.

Scattered all over this section are handbills which read as follows:

#### "FREE GINNERY.

"Cotton ginned free of charge and covering included at the Weldon Round Bale Gin, if sold to the company at Weldon price of square bale the day cotton is ginned, or, if preferred, we will gin and bale for the fifteenth and guarantee Norfolk prices for the cotton.

"No charge for covering, sampling, insurance or drayage.

"Highest prices paid for seed cotton.

"Seed bought at market prices.

"All we ask is a trial.

#### "WELDON OIL MILL."

This notice reads somewhat strangely to the average cotton planter. He has been accustomed for so many years to pay not only the expenses of raising his cotton, but have all of the expenses charged to his account from the time the staple is loaded on the wagon en route to the gin to the time when it is sold to the factor that he has come to regard such expenses as matters of necessity, and would doubtless follow the time-honored custom for the next century were it not for a new system of baling.

The notice referred to is issued by the management of the round-bale cotton press at Weldon, N. C. This is the only plant of its kind within the borders of the State, but although it has been in operation only a few weeks, has attracted attention from all of the cotton-growing districts owing to the many improvements over the old system, which are so manifest that no argument is needed to convince the planter or cotton handler of its superiority. It is located but a few hundred feet from the railroad station at Weldon and is operated by water-power from the Roanoke river. The power canal was described in the Manufacturers' Record several years ago, and the mill property at its terminus is owned by Hon. Don Cameron, of Pennsylvania. At present a corn mill, a cottonseed-oil mill and a ginning plant and the press referred to are operated by this water-power. Arrangements, however, are being made to place in operation a model flouring mill at the same point in the near future, and the machinery for this is now being installed.

The baling press, which is the device controlled by the American Cotton Co., is of the double variety, turning out two bales at the same time. It is, of course, connected with a series of gins, and such is its capacity that it takes the entire product when both presses are running of four Munger gins each of seventy saws capacity. The building containing the gins and press is not over 50x25 feet in dimensions, and one feature of the plant which especially commends itself is the small space required. In fact, from the outside it appears insignificant, but when a visitor finds the plant in operation, as

did the writer, he is very forcibly impressed with its value and utility, and does not need to hear its praises from the farmers who have become among its warmest supporters, that is, those who have had dealings with the company and have taken their cotton to this point to be prepared for the market.

The planter drives his wagon-load of cotton under an open shed, from the roof of which are suspended two pipes, looking not unlike furnace pipes, which are about a foot in diameter. From that time until he receives his money for the cotton and the cottonseed he has nothing to do except amuse himself by watching the machinery or to help feed the cotton into these pipes. As far as the latter operation is concerned, however, a child can attend to it. These pipes are adjusted so that their open ends are a few inches above the mass of cotton. An exhaust fan is then placed in operation, which carries the material up by suction through the pipes and lateral conveyors to the gins, which are supplied in the usual manner. The suction system is similar to that employed in saw mills and wood-working establishments in removing the sawdust and shavings, and, while extremely simple, is very effective. The gins do their work so thoroughly that it is said many of the mills where this cotton is sent use no carding machines upon it. The seed is, of course, caught in receptacles at the bottom of each gin and then transferred to the oil mill, which is about 100 feet distant.

Leaving the series of gins the material is conveyed to the top of the press and into what may be termed the reservoir through a conduit of sheet metal. From the reservoir it travels on endless belts of canvas to a series of heavy metal rollers until it reaches what is to be the core of the bale. The core is simply a cylinder of steel about two inches in diameter, hollow in the center and slightly larger at one end than at the other. In this shape, when the bale is formed, it can be easily knocked out by a wedge and hammer and again utilized. In the form of what might be termed cotton bathing the material reaches the core and is adjusted then in less time than is required to describe it. The space between the rollers gradually diminishes in size, and the density becomes greater and greater until the limit is reached. In forming the bale is merely wound around the core by the machinery. The length of time required varies according to the velocity of the press. A bale can easily be completed within ten minutes, and when the entire plant is working to its full capacity it can turn out twelve bales an hour, or nearly 300 every twenty-four hours. An indicator shows when the limit of the bale has been reached, and by merely pushing a lever the machinery is stopped. A covering of burlaps is then placed in position and the press rolls it around the cotton. The removal of the cotton from the press is an exceedingly simple operation, requiring less than a minute. After the covering is stitched together the ends are closed in the same manner, after extracting the core. Next the bale is weighed and the weight stamped on the outside, while a label, indicating the point where it has been made up, is also pasted on the cover. While the baling is in operation a generous sample of the cotton is taken from the press. This sample is used by the cotton buyers and other inspectors, and hence it is not necessary to open a bale and expose the interior to damage from the weather and other causes, which every cotton planter knows forms not a small item of loss each year. The sample is taken out and numbered similar to

the bale, accompanied by a certificate signed by the superintendent of the press and others, so that there is no question that it is a specimen of the grade of the bale from which it was taken.

By the side of the cotton-press building, and within ten feet of the press itself, is a branch of the Seaboard Air Line Railroad. An empty car is pushed to the door and the bales loaded on the car by hand directly from the building without transfer. The car stands under the same shed from which the pipes project, and it is not an unusual sight to see a wagon-load of cotton being drawn into the press and the finished bales being loaded into the car at the same time. Such is the rapidity with which operations are conducted that the material brought to the plant in the morning may be shipped in two or three hours by train to the Norfolk market.

The simplicity of the mechanism is especially noticeable. As already stated, water-power is used at this plant entirely. But sixty horse-power is required to run the ginning machinery and the baling press. The latter alone requires but twenty-five horse-power. This is supplied by one turbine wheel, and power can be turned on and off as easily as if it were steam or electricity. There are no intricate parts to get out of order, and about the only possible delay that can occur is by the slipping of a belt, which is of little significance. The various rollers are mounted with a heavy covering of rubber, which prevents the cotton from clogging in any way. If the movement of the cotton into the press ceases from any cause the machinery can be stopped immediately. The force required to operate the ginning and baling plant comprises but five or six hands, including the superintendent. The only expert required in the operation of the plant is Mr. A. E. Wilson, the superintendent. Judging from the success which has already been attained, Mr. Wilson is evidently the right man in the right place. One man can operate the levers of both presses. A negro boy is usually placed at each to pick off particles of cotton which may occasionally stick to the rollers or to watch that the feeding of the press is regular. One man can attend to the operation of all of the gins, while another is kept to assist in handling the bales. The scale of wages at this place is not over \$3 per week for each hand, and from this an idea of the economy of the operation can be gathered.

As already indicated by the circular which introduces this article, the planter who takes his cotton to the Weldon press saves the charges of ginning, insurance, baling, etc., and can obtain as high a price as if sold to a factor. The result of this offer has been to keep the press almost continually at work, except during the election period. Every planter within a territory of thirty miles or more around Weldon who has been able to get his cotton to this point has done so. With the extremely low price of the staple and the series of charges saved the producer by the new system, it is not difficult to understand why the company should have such an extensive patronage. The writer conversed with several planters who were waiting at the press to have their loads turned into bales and found that they were unanimous in their support of its system.

The Weldon plant is operated by what is known as the Weldon Oil Mill Co., which also controls the cotton-oil mills. Mr. W. J. Wilson is president, and H. E. Mims, secretary and treasurer.

D. ALLEN WILLEY.

*If you wish to keep posted on the progress of the South, read the Manufacturers' Record. Price \$4.00 a year.*



## FIRMNESS IN IRON.

**But the Market at Birmingham is a Waiting One.**

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., November 15.

It looks like a waiting market in iron. Orders come, as usual; some are accepted and some declined. The basis of sales is \$7.75 for No. 2 foundry, with frequent sales above this price; but the business is not large. Telegrams were received from other districts announcing a dull business and frequent concessions in prices to encourage some activity, but they had no effect on the market here. At this season of the year the market generally droops until the holidays are passed, so that no business of moment is looked for until after the turn of the year. Some sales have been made that extend into 1899, but they are of no moment, and the basis of prices is zealously guarded. The feeling is one of great firmness, and confidence in future prices is so great that all here wonder at the anxiety that prompts concessions in other districts. You can't get them here. One of the large interests reports a stock in furnace yards of only 22,000 tons, only 3000 tons being of Nos. 1 and 2 grades. Another reports only 20,000 tons in furnace yards. The others have greatly less. So one can readily see a strong foundation for the great faith that animates furnace interests in the future of prices. Such small stocks have never before been known. The export demand continues good and the sales of the leading interest to this trade has averaged 1000 tons per day so far this month. To this add the sales of the other interests, averaging 50 per cent. of the principal seller, and one can see the importance of this trade and its development.

Ocean lines are devoting more attention to the development of this trade and room is now offered by the thousands of tons where it formerly was difficult to secure it for a few hundred. Sometimes it happens that New Orleans, which has had the lion's share of this business, is overrun with better-paying shipments. The result, as being now developed, is that the ports of Charleston, Savannah and Pensacola are bettering their facilities for handling iron shipments and diverting the business their way. With four or five ports and the railroads leading there-to competing for this business, there is but little danger of prohibitive freight rates to injure the business. It promises, on the contrary, the lowest rate that can be maintained. As an evidence of the increase of business here and the necessity for increased facilities to promptly handle it one can cite the action of the Birmingham Rolling Mills in securing the Fort Payne steel plant. Its cost a few years ago during the boom period was \$250,000, but when recently sold by order of court it brought only \$75,000. The steel furnace capacity is about eighty tons per day. The rolling mill people will only say they will operate the blooming mill and bring the slabs, etc., here for the finishing work into merchantable product. One can hardly miss it in stating that the steel mill will be operated also when it gets ready for it. At present, anyway, there is no intention to remove it.

Frequent mention has been made in these letters of late correspondence looking to the removal of various manufacturing interests here. The most prominent one to break the ice and announce its determination to come is the Addyston Pipe Works, of Cincinnati. Its president, Mr. D. McLaren, dropped in on us and without preliminary delay announced that he had come to secure a site and

make the necessary arrangements to establish a branch of its works here. The consequence is that everything available has been offered him. The extent of the contemplated plant can be judged from the fact that it wants 160 acres of land conveniently located for transportation facilities. Of course, part of this will be for houses for operatives, but the amount of land wanted would indicate that it expected to grow. Besides the plant for the pipe works there will be also a large foundry and machine shops and one also for the working of steel into the various requirements of mercantile demands. A potential factor influencing this move is the saving of freight. The freight on iron to Cincinnati is \$2.25 per ton. Being at the source of supply it saves that. It also saves return freight on manufactured product coming this way. Besides these we get to the seaboard with less freight rate than Cincinnati gets, and, therefore, can land our product at European ports to greater advantage. Thus for the trade of Mexico, Central and South America now being developed, and that of the West Indies to be diverted to this country, there can be no more favorable locality than ours to command it. Being the cheapest source of supply, we need only capital to dominate the iron trade in all its branches. The Addyston Pipe Works is so well known to the iron world, both financially and otherwise, that this move will command widespread attention and more than ever enlist an increased interest in this locality. Its benefit to Birmingham is difficult to exaggerate. It will clinch the last nail in the determination of the halting ones and give a fixed purpose to some who had as yet simply "contemplated."

It is predicted now that the greater iron industries must, like the cotton mills, move to the cheapest source of supply, "and that's right here." These letters announced some time ago that it was only a question of opportunity and a short time when the Mobile & Ohio Railroad would make its terminus here instead of hanging it in the air out in the woods. It is now an open secret that arrangements are being quietly conducted to that end, and it won't be long before denials will give place to confirmation. Then we can look for the Illinois Central to follow suit, for it is also bound for this "land of Canaan."

We may look for constant additions to our industries from now on until this valley is dotted all over with smokestacks. There is more real business in the letters and visits of inspection now than has ever previously been shown.

J. M. K.

## Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., November 16.

For four months pig-iron stocks have been declining 1000 tons per day, and there are some probabilities that greater inroads may be made. Production is about at the point of passing the highest figures ever reached. Consumptive requirements are likely to increase during the winter, particularly so should railroad building requirements assume the expansive proportions many anticipate. Foreign demand is becoming an important, and, in the opinion of some, a threatening factor. Local demand for the coming year will in all probability be larger than this year; how much larger it were useless to speculate. Taking it all in all the pig-iron situation is becoming full of interest. Buyers are resting in what may possibly prove to be a delusion in believing that in the 100,000 tons idle capacity there is enough room for them to get all the iron they need. But

to operate most of this capacity prices must advance.

The billet market is weaker, and a further drop is said to be expected, though why is not apparent. The general belief is that large consumers will not permit December to pass without protecting themselves against the probability of a later advance. Steel-making capacity will be expanded during the winter and competition will bring prices down whatever amount stimulated capacity can bring about.

The bar, plate, sheet, pipe and tube mills of the country are all doing a heavy and profitable business. Structural capacity is not so crowded. Inquiries from transatlantic sources point to large sales of crude and finished material this and next month. Machinery is in active demand and contracts for home and export markets are of mammoth proportions in numerous instances. Car-building contracts are not infrequent, and, generally speaking, makers of steam engine equipments are remarkably busy. Steel-rail makers have probably closed arrangements this week looking to harmonious production in 1899. It is probable that the average production will be greatly exceeded next year, and it is not surprising that there should be so much effort made to advance prices. In all directions there are evidences of heavier demand and stronger prices, but steel and iron makers are not content. Except in blast-furnace capacity, there is a marked expansion of capacity, which points to possibilities hard to balance in a calm judgment. We may need all and more; we may not. The manufacturers are taking their chances.

## IRON AND STEEL AT BIRMINGHAM.

**Another Great Plant to Be Established—Concentration of Development at That Point.**

The concentration at Birmingham, Ala., of great iron and steel interests goes on apace, giving promise that that city will become what the Manufacturers' Record has for many years predicted—one of the greatest iron and steel making centers of the world. In addition to the large steel plant now under construction, and the steel rod mill for which contracts were awarded two weeks ago, Birmingham is to have another extensive iron-pipe plant. This is to be built by the Addyston Pipe & Steel Co., of Cincinnati, and, according to local reports, will represent an investment of about \$750,000. Moreover, the Federal Steel Co., which has consolidated so many of the leading iron and steel plants of the country, is now making an investigation of the Birmingham district, which will likely be followed by some very heavy investments in that section. It is more than probable that one or more of the leading ironmaking companies of Birmingham will be secured by the Federal Steel Co., which, with its vast capital and world-wide trade, would be in a position to bring about a very great development in Alabama and in the exportation of Alabama iron and steel.

In an interview in the Age-Herald upon the reasons for deciding to establish a pipe plant at Birmingham, Mr. Daniel McLaren, president of the Addyston Pipe & Steel Co., said:

"We have the oldest pipe works in the United States. Away back in the sixties we made castings of old cannon and other material. Our business has constantly grown. Mr. James Bowron, of the Tennessee Coal, Iron & Railroad Co., said recently that we were their largest single customer for pig iron. We have two plants. The one at Addyston, O., has a capacity of 300 tons a day, and the other at Newport, Ky., 150 tons a day.

"We are now billing an order for the Semet-Solvey by-product plant at Ensley, supplying that great enterprise with all its piping. We are also filling a great order for Glasgow, Scotland, and are supplying the pipes for a great electrical-power plant in Dublin, Ireland, all of the machinery of which is supplied by American establishments. Moreover, we are filling an order for Chicago that calls for \$800,000. This Chicago order calls from us a train of seventy-two cars every other day drawn by two mogul engines.

"What we wish and propose establishing is a plant in Birmingham capable of expansion. Our business is expanding; it has, in fact, outgrown our capacity, and we demand a site for our plant that we can expand as our trade grows. We shall keep our plants at Addyston and Newport in operation continuously, but we require a plant here in Birmingham to meet the requirements of our trade.

"We have thoughtfully considered the situation of the iron market, and we came to the conclusion that Birmingham is the place for additional enterprise. Our present plants are too far from tidewater for foreign trade, although we are filling the big orders for Glasgow and Dublin. We desire a plant here in Birmingham for the reason that pig iron can be obtained here perhaps more cheaply than it can be had anywhere else in this country or perhaps in the world. You have here the iron and the coke that we require, and you have cheap transportation to the sea.

"We desire to enter and supply the markets of Mexico, Central America and South America; and, to be perfectly frank with you, we believe Birmingham to be the best point at which to establish a plant. I do not wish to conceal anything. I think it best to tell the truth, so that there may be no misunderstanding in respect to our visit to Birmingham. I bring with me plans and specifications for our plant already prepared. They are upon liberal scale, and provide for the expansion of our trade, which we confidently expect.

"This enterprise of ours is purely business. There is no sentiment about it. Nearly all the pig iron we use at Addyston and Newport comes from Birmingham. The freight we pay on the pig is roughly about \$2.25 a ton, and the return freight is about \$5 a ton on our pipe and other castings. Therefore, our products at Addyston cost about \$7 a ton additional laid down in Birmingham. That additional cost we desire to avoid, and we intend to avoid it. To do so we will build a shop here in Birmingham, for the local conditions are conducive to a profitable business.

"At our home plants we make 72-inch pipe and perhaps the largest castings made in the United States. We make castings fourteen feet in diameter. That will give some idea of our works and that is something of what we wish to do at Birmingham."

## IRON AND STEEL.

**United States Depended Upon to Supply the Deficiency.**

The London Economist, from the standpoint of a belief that the consumption of iron and steel throughout the world is fast overtaking the production, says:

"Some little time since many were alarmed at the rapidly-increasing production of America, and felt that it would be impossible to absorb all that was being made, but since the close of the war trade seems to have taken such a spurt as to dispel all apprehensions on this score. If we bear in mind the great changes which have taken place during the last few years in the prices of iron



and steel in the United States, we could then understand how enormously trade must have been stimulated by this great fall."

The Economist quotes figures to show the drop in Bessemer pig and steel rails, and says:

"As might be expected, this enormous reduction not only stimulated the internal demand, but it enabled the United States to enter upon the export trade on a scale which was impossible during the period of high prices. During the last two or three years this export trade has been growing, and according to the last published returns the total value of raw and manufactured iron and steel exports of all kinds was \$70,367,527, as against \$57,497,872 in the year 1896-97."

It shows that more than 630,000 tons were exported from the United States, of which about 150,000 tons were shipped to England to compete with British manufacturers on their own ground, while the balance went to markets in competition with England and the Continent, and it adds:

"Our own export returns for the same period show no reduction in the total quantities shipped as compared with the year preceding, and it may, therefore, be assumed that the growing demands of the world were met by these additional shipments from America. This is the point which must be kept carefully in view when estimating the effect of this new competition on the future of our trade. During the past ten years the production of pig iron in this country has been comparatively stationary, never exceeding 7,000,000 to 9,000,000 tons during the periods of greatest activity, whereas in the United States during the same time the production fluctuated between 3,000,000 tons in 1879 and 10,000,000 tons in 1897, and today the production is at the rate of about 11,000,000 tons per annum. It is manifest, therefore, that it would have been very difficult to supply the growing wants of the world unless the United States had entered the field in the way she has done. It may be that in future we may have to take the second instead of the first place in the iron and steel trade of the world, but if, as is just possible, the expansion of trade continues in the same or even a larger ratio than during the past twenty or thirty years, we may before long find the large production of the United States insufficient to meet all the requirements of the world."

The production of pig iron throughout the world was 13,000,000 tons in 1871, 20,000,000 tons in 1881, 26,000,000 tons in 1891, 31,000,000 tons in 1897, and the Mercury, estimating that the requirements of 1901 will not be less than 34,000,000 tons, says:

"As the production of Great Britain cannot be very readily extended, owing to the difficulty of obtaining ore, it seems probable that the United States will have to supply the bulk of the additional 3,000,000 tons of pig iron which are likely to be required during the next three years. Germany is the only other country which has been increasing its output to any extent, but this has only been at the rate of 300,000 to 400,000 tons per annum on the average. We have gone thus fully into the question of American competition so far as it is likely to affect us in the future, as many have been inclined to magnify it unduly, and this has tended to make trade, at this time of exceptional prosperity, less profitable than usual. There is also the danger that capital (which was never more needed for improvements) may be withdrawn from the trade if the outlook is made more gloomy than it should be."

## WHITE HYDRAULIC CEMENT.

### A Plant Developing a Rich Deposit at River Junction, Fla.

[Special Cor. Manufacturers' Record.]

River Junction, Fla., November 11.

Several years ago there was discovered here a white hydraulic cement, as purely white as common lime, and therefore a rare novelty not found on the markets of either Europe or America, except as artificially manipulated at great expense. The writings of travelers, however, note the Asiatic ancients, as well as the prehistoric inhabitants of the American Rocky mountains, used a white cement in the construction of their buildings, which has endured to this day with wonderful preservation. One similar fact connected with this discovery brought to light is that the early Spanish settlers of Florida quarried this material in large quantities for the times, as the old mines in the neighborhood of their vorban earth works fortifications, located on the Apalachicola river, indicate, and tradition says they barged it down the river in a raw state to the old stone fort and settlements at St. Marks, from whence they shipped it to Havana to be calcined and ground. It was regularly reshipped back to Florida as late as the twenties, and then as the Americans took possession of the territory the traffic ceased and was soon forgotten, as Mr. John Masters, an extremely old and honorable citizen of St. Augustine, remembers.

There it was used in laying floors of houses directly on the ground, and in pointing over mortar joints of walls already up, as it had been the custom there to put up the building stones with a crude lime mortar made from unsifted burnt shell that soon deteriorated, and it was thought, as this material would harden under water, it would protect the joints. Time, however, has pretty well destroyed the old brown lime mortar in the walls still remaining, but petrified the white cement, as it has done in ancient Asia and the mountains of the West. The Spaniards, however, took this material, which they had discovered near their earth works and settlements on the banks of the Apalachicola, to be a kind of gypsum or plaster of paris, and called it by the French name "Giesti."

From this it is evident that these mines, although the most recently brought to the notice of the American settler, are probably several hundred years the oldest in the United States, as there is no record when the Spaniards first opened and ceased to quarry them, or at what period they garrisoned the forts in the locality.

Besides a wall plaster and a stucco impervious to water, one of the useful articles manufactured out of this cement is a beautiful white hydraulic brick, which in time much resembles a small block of marble, but having to be made of two parts of sand to one of cement, they are in consequence too heavy for profitable transportation over long distances; hence the company will most likely leave this branch of their business to the dry pressed brick manufacturers of the country, which they will find very profitable, as the brick is very much admired for facing buildings. Experiments for durability of this material under all conditions had been successfully going on for seven years before it was discovered that the Spaniards had anticipated us. Tests for tensile strength embraced several hundred examples, which gave a mean pull of 240 pounds per square inch in thirty days (neat) and 412 pounds pull per square inch for two parts sand and one cement in twelve months.

A plant has already been erected at this place by the Florida Cement Co., and is

now in full blast, in consequence of the product being offered as cheap as any other natural cement on the market, instead of at fancy prices, as it was supposed would be the case.

H. S. DU VAL, C. E.

### Progress of Dalton, Ga.

[Special Cor. Manufacturers' Record.]

Dalton, Ga., November 12.

Few Georgia towns of 5000 souls have improved in the past year like Dalton. The Crown Cotton Mill has doubled capacity. The Farrar Lumber Co., presided over by J. Kirk Farrar, has pushed its business into a dozen States outside and is a strong concern financially. The Sanders Manufacturing Co., patentee and builder of the famous Dixie pea huller and hay presses, is pushing its business all over the haymaking States and into Mexico. Mr. J. M. Sanders, the president, is a capable and energetic man.

G. M. Cannon is completing the finest store block in the city at a cost of \$15,000. G. W. Oglesby has just remodeled his block at a cost of \$6000. The Dalton Roller Mills has placed in entirely new machinery. Prater & Co. are building a new flour mill of 1000 bushels capacity per day. Barrett & Denton are finishing a big grain warehouse. The N. & C. Ry. is pushing a \$6000 passenger station.

The city has put in a big new reservoir for fire purposes. An election for sewerage is to take place December 8. An election for electric lights will be held December 12. Davis & Sons, steam packers, have greatly enlarged their capacity.

FRANK T. REYNOLDS.

### Possible Electric Consolidations in Baltimore.

Efforts are being made to combine the three electric-light companies of Baltimore into one corporation. If the plan should succeed bonds will be issued to cover the entire property and to provide for the building of a large modern electric-lighting plant. The companies included in the deal are the Brush Electric Co. of Baltimore City, the Northern Electric Co. and the Edison Electric Illuminating Co. The negotiations looking to the consolidation of the City Passenger Railway Co. and the Consolidated Street Railway Co. will, it is thought, eventually culminate in the purchase of the former by the latter. Should this come to pass about \$12,000,000 would probably be involved in the deal and \$1,000,000 or more would be expended in immediate improvements, including the change of some cable lines to electricity.

### Want to Locate South.

P. McKanna's Sons, Honesdale, Pa., whose woodenware plant was recently burnt out, write that they are looking for a new location, and desire to establish a new plant in some large city that has shipping facilities, and prefer the South or Southwest. Their specialties in the manufacturing line are barrels or kegs for wine, whiskey, oil, turpentine, glucose, sugar, cement, lime, glass, fruit, truck, rice, etc. They will employ from twenty-five to 200 hands.

### Skilled Labor Desired.

In a letter to the Manufacturers' Record, Mr. John W. Hays, of the Wilson Aluminum Co., Kanawha Falls, W. Va., writes as follows:

"Labor is very scarce in this region. I have men out beating the brush up and down the valley and can get only scrubs. We pay cash each two weeks, and run no commissary. I am paying 10 per cent. advance on ordinary rates, or \$1.10 per day, and higher rates for skilled labor."

## COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

### ACTIVITY AT TAMPA.

#### Brisk Business of Steamship and Railroad Companies.

[Special Cor. Manufacturers' Record.]

Tampa, Fla., November 14.

The expansion of Tampa's trade relations with the outside world within the past few months is remarkable. Before the Spanish-American war it was generally recognized as a growing, thriving Southern port. Since the cessation of hostilities its commercial development has been truly wonderful. Two new steamship lines have been established in addition to the Plant Line, and have been operated with a handsome profit from the start. One of these is the line between Mobile and this city, established by the Mobile & Ohio Steamship Co. in connection with the Mobile & Ohio and the Louisville & Nashville Railroads. Another was established by the Southern Pacific Railway from New Orleans to this port. Of the new lines of sailing vessels plying regularly between this and other ports is the Benner Line from New York, an independent line from Baltimore, Crowell-Savarese Company's three lines to Puerto Cortez and Belize, Central America and Tortugas; McKay's Line to Santiago, Cuba, with several independent vessels to Gulf points in Mexico, Texas, etc. The coast fleet of local freighters has nearly doubled, and the tonnage increases as rapidly.

The large tobacco-manufacturing interests here are all doing a fine business, and have in the aggregate nearly doubled the number of their employees since September 1. The steamer Mascotte is now bringing over about 400 bales of tobacco from Havana weekly, and this amount has and will steadily increase until the chief portion of the recent purchases by our manufacturers shall be delivered to them. The shipments of cigars from this point have increased to 260 cases per week, and will continue to increase. The wholesale commission houses and all business firms report a larger and more remunerative trade than they have ever before experienced. Buildings are being erected in every part of the city. A fertilizer plant will be erected as quickly as ample capital and labor can complete it. The owners and operators of this plant are Krause & Haupt. A new seedhouse has been opened by Crenshaw & Sharpe. The large wholesale firm of T. S. Giddens & Co. has just completed one of the largest and best arranged warehouses in the State, and already have it stocked with goods going out as fast as they are received. The finishing touches have been put on the big brick store and office building recently erected by J. W. Krause, of this city. It had the three large storerooms and most of the offices and hall rooms leased and occupied before the walls were dry. The vegetable and orange season is opening, with fair shipments and good prices, which are having a good effect on local trade.

The board of public works is having a large amount of work done, paving and curbing streets, putting in sewers, etc. They will expend this season about \$200,000 in improvements of this class. The fish houses ship from this point at present about 1000 barrels per week. The officials of the railroads terminating here have given out the information that a heavy travel will soon begin to move to and through this city, and continue probably all winter. There is not a desirable



house for rent or a man idle from necessity in the entire city limits.

#### Mr. Huntington and Newport News.

Relative to the prospects of Newport News, Mr. C. P. Huntington, who has recently been a visitor to the shipyard in that city, in an interview, said:

"I am very much pleased with the condition of the shipyard, as I think it never looked better than it does today, and it was never in better condition to do quick and efficient work. Just at present the appearance of the yard is a little spoiled by the preparations now under way for the construction of our great dry-dock, which, as you know, is to be 850 feet long and capable of taking in two battleships at a time. But we can put up with the looks for the sake of what will be accomplished by and by. We are always contemplating improvements and continually making them. This country has something like 80,000,000 of people, with an insufficient navy and practically no merchant marine. Many ships will have to be built in the future, as the naval policy of the United States is established for a long time, and it means constant additions to our navy, until we shall have become ultimately second, perhaps, to none. I think, too, that we are going back for a new example to a period just before the Civil War, when our merchant ships covered the seas and called at every port. I think any intelligent man can see the signs of the times pointing that way. It is because I realize the future in store for this country in the way of a great shipbuilding industry that I am making the Newport News yard in readiness to build anything that comes along in the way of a ship."

#### Improvements at Sabine Pass.

The improvements being made by the Southern Pacific Railway Co. at Sabine Pass are recognized as of great importance. The Manufacturers' Record has from time to time referred to this work, which includes wharves and warehouses, also the deepening of the ship channel. The natural formation is conducive to a deep-water harbor at this point. The development of the seaport at Sabine has resulted entirely from its natural advantages. Although the government has spent but a little over \$2,000,000, yet the engineers say that the money has been used to the greatest advantage. By the construction of a jetty system the action of the current and the formation of the channel has created a depth of water sufficient to float vessels drawing nearly thirty feet of water in some sections. The work thus far completed includes 5500 feet on the east jetty and about 7000 on the west jetty. They are of what is termed mattress formation, the brush for the mattress being brought in barges from the vicinity. Each one is sunk by a weight of forty tons of rock, and the construction is regarded as permanent. It is calculated that the present contract will be completed within the next two years, and that a depth of water will be secured for the entire length of the channel of at least thirty feet.

#### Should Not Delay.

Among the residents of Charleston, S. C., who have taken a deep interest in the export business from that port is Mr. L. A. Emerson, traffic manager of the South Carolina & Georgia Railroad Co. In a recent interview on the subject he says: "We have no time to throw away in waiting for something to turn up. Other cities and interests are working night and day with a view to capturing this trade, and if we hope to participate in it we must act and act now. Letters and telegrams from

all over the West have come to me almost daily asking for information as to our intentions in Charleston. These people declared that they would support heartily a line from here to the West Indies. They said there would be no question or trouble in finding plenty of freight for our steamers to carry if we would only put them on a regular line. This country is going to do a big business with the newly acquired territory. If we establish a line of steamers from here to Cuba or Porto Rico we will participate in it. If we fail to do so, other courses will be found, and once started in a given channel, it will be almost impossible to divert the traffic between the islands and the mainland in our direction."

#### New Orleans' Competition.

According to M. R. Spelman, who is interested in New Orleans' export business, there is much interest manifested in Northern cities over the percentage of this trade during the past year. Mr. Spelman, who has recently returned from New York, Boston and elsewhere, is quoted as follows:

"The bringing here of so much grain by the Illinois Central and other roads has aroused the competitive spirit of the Atlantic seaboard cities, and they are determined, if possible, to keep pace with the marching movement of this city as far as concerns commercial greatness. But the more they work for cheap rates, and the more inducements they offer for the control of exportations, the less seems to be the results obtained. In other words, the people East are beginning to learn the real strength of this port and they are fearing it. In New York the importance of New Orleans is commented upon by the business people generally. There will doubtless be a great deal of capital coming here during the next few years."

#### Deep Water at Aransas Pass.

According to a dispatch from Aransas Pass, Texas, the project of securing deep water at that point has been revived. Prof. Louis M. Haupt, of Philadelphia, recently visited this point at the request of Mr. Brewster Cameron, one of the principal promoters. Professor Haupt is strongly in favor of carrying out the project, and it is understood that efforts will be made to obtain favorable legislation at the coming session of Congress.

#### New West Indian Company.

The West India Trading Co. has been organized by Robert Garrett, John J. Hurst and others, with \$150,000 capital. This company proposes to carry on a passenger and freight business between Baltimore, the West Indies and the Bahamas. The officers of the company are: President, Charles Nitze; treasurer and general manager, Emil Rautman; secretary, John J. Hurst.

#### Jottings at the Ports.

The report submitted at the annual meeting of the Savannah Cotton Exchange, of Savannah, Ga., showed that 1,192,057 bales had been received—the largest receipts in the history of the city. The quantity received is 41 per cent. more than during the preceding year.

The Baker-Whiteley Coal Co., of Baltimore, has given a contract to the Maryland Steel Co., at Sparrow's Point, for a new towboat to be added to its fleet. The engines will be about 800 horsepower, and the boat will be 125 feet in length and constructed of steel.

The Vicksburg (Miss.) Transportation Co., recently formed for the purpose of operating a line of boats on the Missis-

sippi river, has elected the following officers: G. C. Meissonnier, president and treasurer; T. B. Rundle, late assistant secretary of the Anchor Line, secretary.

The Texas & Pacific Railway Co. has purchased the transfer boat which was referred to several weeks ago in the Manufacturers' Record. It is stated to be one of the largest of its kind and will be placed in service between the company's terminals at Westwego and New Orleans.

At the annual meeting of the New Orleans Maritime Association the reports presented showed that 421 cargoes of cotton have been examined during the year, representing 2,024,000 bales. The expense of inspecting this amounted to \$17,416, leaving a balance for the year of \$3826.

The Richmond Locomotive and Machine Works have recently completed seventeen locomotives for the Finland State Railway. The engines were sent to New York by rail, where they will be loaded on a steamship for their destination. They are transported in sections, and the shipment required about fifty cars.

A dispatch from Richmond, Va., states that it is expected to begin work in the shipyards of that city before December 1. The ways are being erected and necessary buildings for the purpose. As already stated in the Manufacturers' Record, contracts for several torpedo-boats have been secured by this company, of which Wm. R. Trigg is one of the principal promoters.

The Business Men's Association of Danville, Va., has decided to advertise the advantages of this city as a tobacco market, especially with the view of getting more export business. A fund is to be raised with this idea in view, and it is believed that with proper agitation the advantages of Danville as a buyers' market will become widely known in Europe.

The British steamship *Monarch*, Captain James A. Murray, recently cleared from New Orleans for Liverpool with 20,650 bales of cotton, 128,571 bushels of corn and 18,941 pieces of oak staves, which is the largest general cargo ever carried out of New Orleans by any one vessel. The weight is equal to the bulk of 27,500 bales of cotton, and is valued at \$572,808.

Work has begun upon the dry-dock to be built at Newport News, Va. Piles have been driven to support the sides, and it is calculated to employ 1000 men in the work of excavation. This dock has already been described in the Manufacturers' Record, and it is calculated will cost fully \$1,000,000. It will be constructed by the Newport News Shipbuilding & Dry Dock Co.

The Snyder-Havana Fleet, sailing between Mobile and Havana, will be increased by the addition of two steamers, each of 2400 tons capacity. Each steamer will accommodate 100 passengers and a large amount of freight, and will enter the trade the first week in December. With these two new acquisitions the fleet will consist of four or more freight and two combination freight and passenger boats.

The Southern Pacific Co., which is now operating a line of vessels between New Orleans and Havana, is exceedingly gratified at the size of the cargoes and the number of passengers. The steamship *Clinton*, one of the last to clear, took out a large cargo of grain and provisions. The question of return cargoes is being strongly agitated by the shipping agents. It is believed that New Orleans will become a point for large imports of tobacco, which will be shipped by this line.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

#### To Add \$84,000 Worth of Machinery.

The annual meeting of the stockholders of the Whitney Manufacturing Co., of Whitney, S. C., was held at Spartanburg, S. C., on November 12. The reports of the executive officers were read and received with commendable remarks by those present. The dividend declared was 2½ per cent., a semi-annual, payable on January 1, 1899.

The election of officers resulted in the same roster being chosen, which includes Col. John B. Cleveland, president, and M. G. Stone, general manager and treasurer.

After the above proceedings it was voted that the company increase the capital stock \$84,000 and fill up the mill with machinery. The capital stock will then be \$274,000 common stock and \$76,000 preferred stock, making a total of \$350,000. The additional machinery will include 2500 spindles, to give the plant a total of 20,000.

#### The Cotton Movement.

The report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, November 11, shows that the amount of cotton brought into sight during the season to date was 4,168,485 bales, an increase of 337,163 bales over the same period last year. The exports were 1,966,620 bales, an increase of 205,000 bales. Takings by Northern mills, 431,986, a decrease of 167,108; by Southern mills, 283,585 bales, an increase of 5817 bales.

#### Textile Notes.

The stockholders of the Spartan Mills, of Spartanburg, S. C., held their annual meeting on November 12. A semi-annual dividend of 3 per cent. was declared and all old officers were re-elected.

Mr. J. Percy Scott, of Lexington, Ky., will establish a hemp factory. Work has been commenced on the building for the industry, to be 50x150 feet in dimension, eighteen feet high and equipped with machinery.

The annual meeting of the stockholders of the Lockhart Manufacturing Co., of Lockhart, S. C., was held on the 12th inst. A semi-annual dividend of 3 per cent. was declared and the officers and directors of the past year were re-elected.

The Levi Cotton Mills Co., of Rutherfordton, N. C., has been incorporated, with a capital stock of \$20,500, for the purpose of manufacturing cotton cloths, etc. The incorporators are Messrs. Myer Levi, D. F. Morrow and J. F. Flack.

According to the report of the Board of Trade and Business Men's Association of Norfolk, the trucking business for the year recently completed amounted to \$3,500,000. This will give an idea of the extent of the industry of which this city is the center.

Among the recent shipments consigned to far-off countries and sent over the Norfolk & Western were eight carloads of leaf tobacco from Richmond, Va., to Yokohama, Japan. The tobacco will be shipped by way of Tacoma, Washington.



## RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

## Statement of the Seaboard Air Line System for the Year Ending June 30, 1898.

Receipts from all sources.....	\$4,011,554 32
Operating expenses.....	\$2,491,492 14
Taxes.....	116,412 76
	2,607,904 90
Gross Income.....	\$1,403,649 42
Deductions from Income, including Fixed Charges, Leases and Losses of every nature.....	1,134,683 87
Net Income.....	\$268,965 55
Dividends on Stock.....	22,896 00
Surplus.....	\$246,069 55

## SEABOARD AIR LINE BELT RAILROAD COMPANY.

The receipts of this company for the year amounted to \$85,688.09, and show a surplus, after paying all charges, of \$49,964.45.

## LAWRENCEVILLE &amp; LOGANVILLE RAILROAD.

The grading on this road has been completed, and the track is now being laid, and the road will soon be ready for business.

## NEW INDUSTRIES.

During the year forty-nine new manufacturing establishments of various kinds have been established on the line of the road, and twenty-two manufacturing establishments enlarged.

Especially attention is directed to the report of the vice-president and general manager, published herewith, for all details connected with the year's work.

The statement of the treasurer, together with those of the lessees of the Georgia, Carolina & Northern Railway, are submitted with this report, and furnish all information in detail.

The acknowledgments of the board are due to all the officers and employees for the faithful, efficient and intelligent manner in which their duties have been performed during the year.

This report is respectfully submitted by order of the board.

R. C. HOFFMAN, President.

## VICE-PRESIDENT'S REPORT—SEABOARD AIR LINE.

## MILEAGE.

The railroads and railways comprising the Seaboard Air Line control the following mileage:

Roads.	Miles Main Line Track.	Miles Side Track.
Seaboard & Roanoke.....	113.60	32.70
Raleigh & Gaston.....	100.54	12.59
Durham & Northern.....	41.40	1.60
Raleigh & Augusta Air Line.....	136.13	13.05
Carolina Central.....	273.43	30.95
Georgia, Carolina & Northern.....	274.20	30.72

Adding three miles, Howells to Atlanta, over which our trains have trackage rights, and the total main line track operated and controlled is 951.30 miles, with 121.61 miles of side track, which combined, equals 1072.91 miles of single track.

## COMPARATIVE STATEMENT OF

Items.	1896.	1897.	1898.
Passenger Earnings.....	\$900,124 70	\$820,175 68	\$811,804 36
Freight Earnings.....	2,301,833 71	2,600,112 20	2,544,058 93
Total Other Earnings.....	193,441 40	225,227 09	174,858 10
Total Earnings from Operation.....	\$3,395,399 81	\$3,645,514 97	\$3,530,721 39
Total Operating Expenses.....	2,489,885 37	2,669,480 40	2,491,492 14
Total Net Earnings.....	\$905,514 44	\$976,034 57	\$1,039,229 25
Percentage of Operating Expenses to Gross Earnings.....	73.3	73.2	70.5

The earnings for the fiscal years ending June 30, 1896, 1897 and 1898, given above by way of comparison, represent the most prosperous years for the companies comprising the Seaboard Air Line that they have experienced for many years, and these results were obtained at a time when the financial condition of the country was by no means flattering, and

during a period when the conditions surrounding the various properties were by no means anything like those which exist today, and which are commented upon most favorably by those living in the cities and towns through which your lines operate, as well as by those engaged in the operation of railroad properties in other sections of the country and who have had occasion to pass over the properties owned and controlled by our people. If this is true of the past, and it cannot be successfully controverted, may we not reasonably expect a greater measure of success during a period of financial prosperity, such as it is believed we are now entering upon, and which it is confidently asserted must last for several years?

Very much remains to be done for the improvement of the properties herein referred to, but there is reason for congratulation over what has been accomplished under your management during the past four years, and the future would seem assured. From the "Slough of Despond" you have lifted them, and certain of the properties whose earnings previous to the time mentioned were insufficient to meet their excessive operating expenses have been made to be not only self-sustaining, but to provide a surplus for such uses as might be determined upon.

Your gross earnings from operation decreased slightly during the fiscal year ending June 30, 1898, in comparison with 1897, but show a very marked increase over those of 1896, while the net earnings for 1898 show the best results heretofore obtained. The percentage of operating expenses to gross earnings for 1898 is the lowest in the history of the line, and under improved conditions it is expected to still further reduce it.

There were many causes which tended to affect your transportation earnings, and notably the following were prominent ones:

Yellow Fever.—This malady became to an extent epidemic during September, October and November of the past year, and quarantine regulations were instituted at various cities from which we ordinarily derive a very considerable revenue. This reduced purchases of high-class freights—in fact, of almost all commodities handled by railroads, with the result of decreased earnings.

Cotton.—Reductions in rates on cotton by competitive lines (working business to other seaports) to figures unremunerative to either the lines making them, or to our own, caused us to withdraw from certain of this business, which tended also to affect your earnings somewhat.

Reduction in Rates by Railroad Commissioners.—Transportation earnings were also somewhat affected by reductions ordered by railroad commissioners of the various States in which your properties are located.

Changes in Ownership of Railroads.—Certain changes in ownership and control of railroad properties heretofore independent and contributing somewhat more in the past to your earnings than at present

is also noted, but the real effect has been comparatively slight. With increased facilities and added connections into new territory, which always follows the increased prosperity of the country at large, and the constant development of the local business of your lines, we may anticipate the future with much satisfaction.

In net earnings, 1898 over previous years, and in operating expenses, we show highly favorable results, occasioned largely by the consolidation of freight on trains and the consequent reduction in the number of freight and mixed trains operated. This reduction upon the various lines under your management during the fiscal year just closed aggregated 4140, while the tonnage handled decreased but slightly.

Our average tons handled per train increased from 155 in 1897 to 195 in 1898, or forty tons.

The average tons handled per loaded car in 1897 was 9.7; in 1898, 10.8, showing an increase in tons per car of 1.1.

The average loaded cars per train in 1897 was 16; in 1898, 18.1, an increase of 2.1. The average number of freight cars per train, loaded and empty, in 1897 was 21.3, and in 1898, 24.4, an increase of 3.1.

To accomplish this transfer sheds were erected at certain junction points where the necessity existed, and the results obtained can but prove equally as satisfactory to you as to myself. We hope, however, for still better results in the future.

For your further information the following facts will doubtless prove interesting:

Freight:	1895.	1896.	1897.	1898.
No. of Tons Carried One Mile.....	124,620.767	157,517,920	206,131,238	201,489,095
Av. Rate per Ton per Mile.....	.01972	.01709	.01617	.01398
Passenger:				
No. Miles Travelled.....	26,302,975	44,707,191	31,837,173	32,537,355
Earnings per Pass. per Mile.....	.02250	.01953	.02151	.02040

## CAR SERVICE DEPARTMENT.

Under the management of our superintendent of car service the adverse car mileage balance, which in 1896 was \$60,437.28, was reduced in 1897 to \$48,593.60, and in 1898 to \$22,174, and it is but just to say in connection with this department that the payments for the use of equipment have been largely made to railroads forming the Seaboard Air Line, instead of to foreign lines. The efforts made and the care displayed by the head of this department to bring about such desirable results were commenced something over two years ago.

## CAR EQUIPMENT—YEARS ENDING JUNE 30.

Kind of Car.	1897.	1898.	Inc.	Dec.
Box.....	1219	1392	173	
Furniture.....	27	27		
Stock.....	50	58		1
Flat.....	876	991	115	
Coal.....	8	8		
Miscellaneous.....	58	72	14	
Caboose.....	48	52	4	
Passenger.....	103	103		
Total Cars in Service.....	2398	2703	305	

Certain equipment belonging directly to the older lines consists of small-capacity cars, which have seen service for long periods of time, and it has been found necessary during the past few years to scrap each year certain cars, useless from age, and which would not reasonably bear the expense of necessary repairs, and your

Items.	1896.	1897.	1898.
Miles Run by Locomotives.....	3,715,013	3,979,692	3,487,687
Av. number miles run per Engine.....	32,305	31,585	29,827
Cords of Wood Used.....	15,141	10,434	5,344
Tons of Coal Used.....	91,044	107,260	88,604
Pints of Valve Oil Used.....	39,774	35,042	31,886
Pints of Engine Oil Used.....	120,594	100,340	94,021
Pounds of Waste Used.....	22,896	22,680	20,704
Miles Run to Cord of Wood.....	28	33	36.5
Miles Run to Ton of Coal.....	36	33.3	37.2
Miles Run to Pint of Valve Oil.....	93	114	100
Miles Run to Pint of Engine Oil.....	31	110	37
Mile Run to Pound of Waste.....	162	175	168
Cost of Repairs.....	\$122,503 32	\$134,557 67	\$144,571 56
Cost of Fuel.....	229,889 75	259,212 68	207,698 95
Cost of Oil and Waste.....	6,779 64	5,731 65	5,082 87
Cost of Engineers and Firemen.....	213,662 95	201,376 08	176,285 12
Cost per mile run Engineers and Firemen.....	.057	.050	.041
Cost per mile run for Repairs.....	.033	.033	.041
Cost per mile run for Fuel.....	.061	.065	.059
Cost per mile run for Oil and Waste.....	.0018	.0014	.0015
Total Cost per mile run.....	.152	.149	.153

## COST OF MAINTENANCE OF EQUIPMENT. (Including Trust Cars and Engines.)

Items.	1896.	1897.	1898.
Superintendence.....	\$13,955 98	\$14,613 95	\$15,121 15
Locomotives.....	135,593 81	139,243 30	144,571 56
Passenger Cars.....	41,600 32	54,585 18	63,797 65
Freight Cars.....	86,894 28	85,034 89	102,899 10
Work Cars.....	2,481 79	3,300 16	3,097 26
Marine Equipment.....	2,109 32	7,097 51	2,697 40
Machinery and Tools.....	19,393 54	21,478 23	23,868 84
Stationery and Printing.....	1,218 43	2,003 66	1,847 13
Other Expenses.....	2,113 00	3,369 78	8,916 06
Rent of Shops.....	6,810 03		
Total.....	\$312,290 59	\$330,735 06	\$366,817 12

statements from year to year have shown the numbers of the cars thus disposed of. Their place has been largely taken by new cars, built under various trusts, which cars are included in above figures. It may be well to state, however, that certain of the old numbers vacated will be renewed from time to time, as the conditions of the various companies, and demands of traffic warrant.

During the year 228 new 60,000-pound capacity box cars and 150 flat cars were built and included in Car Trust "D." These cars were equipped with every necessary modern appliance. In addition, 20 box cars were built to replace system cars (12 equipment, 6 Trust "C" and 2 S. & R.) destroyed; also, 5 additional flat cars for the Seaboard & Roanoke, and 5 for Raleigh & Gaston railroads.

One caboose, three box and twenty-five flat cars were also rebuilt; 4 sleeping cars, 16 coaches, 4 passenger and baggage, 7 baggage, mail and express, and 1 paymaster's car were thoroughly repaired and varnished; 12 coaches, 5 passenger and baggage and 7 baggage, mail and express cars received ordinary repairs and varnishing; 16 caboose cars were repaired and repainted, 59 freight-car roofs applied, 89 freight-car floors applied, 639

freight cars repainted, 400 freight-car roofs painted and 302 automatic couplers applied; 1414 new wheels and 1294 old wheels used in repairs; 431 new axles and 923 old axles used in repairs; 4945 freight cars received miscellaneous repairs during the year; 68 freight cars were destroyed and 19 scrapped; 6 new cabooses were built at Portsmouth Shops for the Raleigh & Augusta Air Line; 2 of our vestibuled passenger trains have been equipped with Pintsch gas.

## PERFORMANCE OF LOCOMOTIVES.

The number of locomotives owned by the lines comprising the Seaboard Air Line (including Trust locomotives) was as per following statement for the fiscal years ending June 30:

1895.....	119
1896.....	117
1897.....	127
1898.....	135

During the fiscal year ending June 30, 1896, there were added to this equipment 13 locomotives, and 15 old and used-up locomotives were scrapped. During the fiscal year ending June 30, 1897, there were added 12 locomotives; one old and used-up locomotive was scrapped and one sold. During the fiscal year ending June 30, 1898, there were added nine locomotives, and one old and used-up locomotive scrapped.



During the year the following additions and repairs have been made to the motive-power of the railroads comprising the Seaboard Air Line, including Trust engines: Twenty-one tanks rebuilt, 1 new boiler, 5 boilers rebuilt, 16 new cylinders, 5 new driving-wheels, 58 new steel tires, 9 new tender-frames, 26 new engine and tender trucks, 14 new steel driving axles, 23 new smokestacks, 21 new engine caps, 29 new pilots, 60 new crank-pins, 62 new steel piston-rods, 18 new cross-heads, 10 new injectors, 15 new airbrakes, 1 new flue-sheet, 10 new flues, 33 flues reset, 258 new pairs and 155 old pairs of wheels used, 147 new and 266 old axles used, 306 engine-tires turned; 41 engines have received thorough repairs, 21 medium repairs and 23 light repairs; 77 have been painted and varnished, and on June 30, 10 were in shops for repairs.

## REMARKS.

During the fiscal year ending June 30, 1898, 99.4 miles of track owned by your various companies have been ballasted with gravel, and generally the conditions of main-line track and roadbed show very great improvement. A branch track 2.87 miles long was built during the year from a point four miles south of Weldon to cotton factories at Roanoke Rapids, on Roanoke river. At Gaston, N. C., on the Raleigh & Gaston Railroad, a cut-off was nearly completed at the end of your fiscal year, which will prove wonderfully advantageous, in that it shortens the distance .9 of a mile and reduces the gradients from seventy-four to fifty-two feet, and makes an entire tangent where a most objectionable curvature existed. The result can but be that it will allow a very largely increased train tonnage, which will result in added savings in the movement of freight trains over your line, besides eliminating the previous possibilities of frequent accidents. This new piece of roadbed has been thoroughly ballasted with gravel.

About seventeen miles of new 65-pound steel rail has been laid in the main line during the past year, and fourteen additional miles have been purchased and were in process of being laid at the close of the fiscal year. This will release lighter rail, which has been or will be used to improve sidings at important points. Passenger facilities at many points have been improved, or provided, where none before existed. This work has been accomplished in the face of reduced expenses for maintenance of way and structures as compared with previous years.

During the year 311,607 ties have been placed in the tracks of the various companies and the bridges and buildings of all lines have been fully maintained and are in a fairly good and substantial condition.

Changes have been made in side tracks, and extensions have been added thereto at various points, which are referred to directly in the reports of the various companies.

A new siding 2000 feet long has been put in at Roanoke Junction, and changes and extensions have been made in side tracks at Littleton and Durham, tending to materially improve conditions previously existing.

Transfer sheds for the consolidation of freights have been erected at Weldon, Lincolnton, Winder and Howells.

A new passenger station has been erected at Roanoke Junction, also one at Lumberton, and a small freight house at Pembroke. The freight house at Rockingham has been enlarged, and the passenger facilities at Shelby and Lincolnton increased materially.

A joint combination freight and passenger depot with the O. R. & C. Ry. has

been erected during the year at Catawba, S. C. The freight depot at Franklinton was destroyed by fire on the night of May 4, but has been rebuilt. At Durham a system of culverts, waterways and drains have been put in, which will improve the situation materially.

Nearly all of the depots and other buildings, as well as bridges, have been painted during the year.

A new stock pen was built at Councils, and a new roof has been placed on the Hamlet freight depot. At Charlotte we built an addition to the retaining wall by side of the Salisbury road at the passenger station. The depot grounds have been graded and put in good condition, the city doing the macadamizing. The depot building at Alma was destroyed by fire March 23, and had not, at the close of the fiscal year, been rebuilt. At Rhines Station a freight house has been built. At Raleigh a new water tank has been erected. At Louisburg a lot with private warehouse thereon, and connected with our station, was purchased to meet the added requirements of our business.

Many other improvements of more or less importance have been made during the year, and details in relation thereto may be had by reference to the annual reports of the various companies.

## INDUSTRIAL DEPARTMENT.

Our chief industrial agent reports that for the fiscal year ending June 30, 1898, ninety-four enterprises have been established on the line of the various roads comprising the Seaboard Air Line, consisting of eight cotton factories, thirteen canning factories, five clothing factories, nine flouring mills, three spoke and handle factories, three furniture factories, one broom factory, one rope and twine factory, one shirt factory, one agricultural-implement factory, one bicycle, two buggy and wagon and one baking-powder factory, and forty-six miscellaneous factories.

He further reports that 443 families have settled upon the line during the past year, bringing with them nearly \$1,000,000, and aggregating in number of persons over 2000; also, that there have been set out 224,000 fruit and shade trees at stations on line during past year. Twenty-two experimental farms have been started during the year, and three agricultural libraries, in the direct interest of farmers, are being maintained through his department, and books from catalogues are being drawn and forwarded to farmers living upon our line on request. Flower gardens have been established at more than one-half of the stations on our line and improvements are continually being made in connection with this work. Connected with his department are 400 assistant industrial agents, who work for the development of their respective localities. The value of this work, as the years pass by, must prove very great to your interests, while the expense incurred has been comparatively small.

My acknowledgments are due, and are most cheerfully made, to all officers and heads of departments who have aided in making the results obtained under your management during the past four years possible. Very sincerely,

E. ST. JOHN,

Vice-President and General Manager.

To Mr. R. C. Hoffman,

President Seaboard Air Line.

Baltimore, Md.

## Baltimore &amp; Ohio's New Trains.

The enterprise of the present management of the Baltimore & Ohio is again reflected in the train service which it proposes to establish between New York and Washington over the "Royal Blue" line.

The company has had constructed two trains which are claimed to be composed of the finest coaches ever turned out by the Pullman Palace Car Co. The cars are so arranged as to make a literal hotel on wheels in every sense of the word, and apparently nothing has been neglected which will contribute to the safety and comfort of the traveler.

The "Royal Limited" is composed of observation, parlor, cafe, smoking and dining cars, the entire equipment being especially made for this service. The two trains will leave New York and Washington simultaneously at 3.30 P. M. daily, and are exact counterparts. The parlor cars are superbly finished in vermilion wood, with an inlay of Persian design. The ceiling of royal blue and the upholstery of the same color, except in the ladies' toilet, which is of dark olive green, the ceiling being decorated to correspond; the drawing-room being finished in harmony with the main parlor of the car. The general design of the interior of the main parlor is Persian, whilst in the drawing-room and ladies' toilet the design is renaissance.

The observation, cafe and smoking cars are of the same general appearance in the exterior as the parlor cars, except that the observation end is recessed with a deep platform. The full seating capacity of each car is thirty-three, including fourteen chairs in the smoking compartment. The parlor compartment is finished in vermilion, richly inlaid; the ceiling in blue and aluminum, and the chairs upholstered in royal blue. The smoking compartment is finished in Circassian walnut, exquisitely inlaid; the chairs upholstered in green plush, with dark olive seat covers of leather; the ceiling of red and gold, the general design being of Italian renaissance. The car is provided with desk and writing material—a very important necessity to the traveler.

The dining cars are the very latest patterns. These cars, the "Waldorf" and "Astoria," are placed in commission bearing the names of the greatest hostesses in the world. The service is under the direct control of the passenger department of the Baltimore & Ohio, of which Mr. D. B. Martin is at the head.

## Railway Annual Reports.

The report of the Southern Pacific Railway Co., which has just been issued in pamphlet form, contains some interesting figures. The total receipts for the year amounted to \$58,477,000, an increase of \$7,426,000. The balance, after deducting expenses of all kinds, amounts to \$4,122,000, an increase of \$2,000,000 over the preceding year. The total betterments during the year was \$1,299,000, leaving a surplus over all of \$2,823,000, which is an increase of \$1,733,000 over last year.

The annual report of the Kansas City, Pittsburg & Gulf system, which has been made public, contains the following statistics: Gross earnings, \$2,878,159; operating expenses, \$2,139,182; net earnings, \$738,977; taxes, \$54,143, and net income, \$684,834. The percentage of operating expenses to earnings, exclusive of taxes, is 74.33 per cent. The general balance-sheet shows: Assets—Construction and equipment, \$47,973,389; current assets, \$585,142; supplies on hand, \$85,667; total, \$48,644,198. Liabilities—Capital stock, \$23,000,000; first mortgage bonds, \$22,578,000; equipment trust obligations, \$1,983,762; accrued interest on bonds not payable, \$281,475; Texarkana & Fort Smith Railway Co., \$16,321; current liabilities, including lease warrants, \$766,646; income, \$17,904; total, \$48,644,198.

The report states that the road has earned the interest on its bonded indebtedness accruing to July 1, 1898, and \$17,

000 in addition. The average haul was 323 miles. The long average haul, per ton of freight, being 302.60 miles during the year 1897-98 and 323 miles during August, shows that the development of business tends to increase the average haul per ton.

## New Florida Line.

A dispatch from Tallahassee, Fla., states that twenty miles of the Tallahassee Southeastern Railroad have been completed and a large force of men is now employed on further extensions. This new road takes a southeasterly course from Tallahassee, and, going as far as Gainesville, will traverse the counties of Leon, Jefferson, Taylor, Lafayette and Alachua. The country to be reached by the new line has an abundance of pine, cypress and cedar timbers, it is stated, and numerous large tracts of excellent farming and grazing lands. Along this route are said to be many phosphate deposits. When the line is completed to Old Town, on the Suwannee river, a distance of 101 miles, it will intersect the Atlantic, Suwannee River & Gulf Railroad, in course of construction, in a southwesterly direction from Starke, and south of Gainesville it will cross the Florida Central & Peninsular system near Archer. Mr. Edward Lewis, at Tallahassee, is president of the company.

## English Investors Interested.

As readers of the Manufacturers' Record are aware, the project of constructing a railroad east and west across the State of Virginia by the Virginia, Fredericksburg & Western Railroad Co. attracted the attention of English capitalists some time ago. It is understood that matters reached a point where a syndicate agreed to take a bond issue to finance the construction, but the beginning of the war caused them to abandon their intentions. In a letter to the Manufacturers' Record, Hon. Wm. A. Little, Jr., of Fredericksburg, attorney for the railroad company, states that negotiations have been resumed, and that there is a possibility that the enterprise will yet be carried out with their assistance. He states, however, that nothing definite has been decided upon as yet.

## Along the Red River.

In a recent letter to the Manufacturers' Record, Mr. Clarence Ellerbe, president of the Louisiana Central Construction Co., gives the following details relative to the Shreveport & Red River Valley Railroad, which his company is building: "The Shreveport & Red River Valley Railway is now completed and in operation to Coushatta, La., forty-five miles, and is under construction to Campti, eighteen miles below Coushatta. This extension will be opened for traffic about December 1. We will let contracts for eleven miles more, to a point to be called Clarence, La., making in all a distance of seventy-four miles. At Clarence our contract terminates."

## New Roads in Mississippi.

According to a dispatch from Philadelphia, Miss., surveys are being made for a railroad which will form a southern continuation of the Canton, Aberdeen & Nashville Railroad. It is called the Philadelphia, Louisville & Great Northern, and will extend from Philadelphia through Winston county to Fentress, Miss., which is to be the terminus of the Canton, Aberdeen & Nashville Railroad, already alluded to in the Manufacturers' Record. It is understood that both of the lines referred to will be branches of the Illinois Central, which will traverse a section of Mississippi almost destitute



of railroad facilities and containing extensive tracts of hardwood timber.

#### Baltimoreans in Atlanta.

A Baltimore syndicate has secured control of the Atlanta Railway Co., of Atlanta, Ga., and, it is understood, will reorganize the company and build the extensions for which it has recently secured a franchise. The syndicate purchased the securities of the road, \$300,000 bonds and \$300,000 stock. It is understood that it will issue \$500,000 in 5 per cent. 40-year gold bonds, \$200,000 preferred stock and \$800,000 common stock. Messrs. Middendorf, Oliver & Co. represent the syndicate.

#### Missouri Pacific Extension.

In a letter to the Manufacturers' Record, W. B. Doddridge, general manager of the Missouri Pacific Railroad at St. Louis, Mo., writes as follows relative to the proposed line in Arkansas:

"Our company has made a survey between Little Rock and Greenwood, with a view of building what is known as the Little Rock & Petit Jean Branch, St. Louis, Iron Mountain & Southern Railway, the track distance to be constructed being about 130 miles. As yet no contracts have been let."

#### Atlantic Coast Line Branch.

The Atlantic Coast Line has decided to build an important branch, which will connect the South Carolina & Georgia division with the Port Royal & Augusta Railroad. The line will extend between Robbins, S. C., and Denmark, and will be thirty-five miles long. The contract has been awarded to Messrs. Abercrombie & Williams, of Montgomery, Ala., and requires that the work be finished by May 1, 1899. It is understood that a large force will begin work immediately.

#### Increased Earnings.

Recent reports of earnings of the Georgia & Alabama Railway should be extremely encouraging to security-holders. The report for the fourth week in October shows that the earnings were 25 per cent. greater than ever before earned in any one week in the company's history. The earnings from July 1 to November 1 amounted to \$427,763, a gain of \$42,500 over the corresponding period of last week, or 11 per cent.

#### Seaboard Officers Re-elected.

The annual meeting of the companies forming the Seaboard Air Line resulted in the re-election of the present general officers, who are as follows: R. C. Hoffman, president; E. St. John, vice-president and general manager. During the year a sub-company was formed to operate the Loganville & Lawrenceville branch, recently completed. Mr. Hoffman has been elected president of this company also.

#### Railroad Notes.

The New York, Philadelphia & Norfolk Railway Co. has removed its terminal offices to Port Norfolk, which is connected by ferry with the railroad terminals at Cape Charles, Va.

A St. Louis dispatch is to the effect that the Lindell Railroad is negotiating with the view of absorbing the other street railway systems in the city and forming a consolidated company with \$10,000,000 capital.

The St. Louis & San Francisco Railroad Co. announces the completion of its branch between Sapulpa and Oklahoma City, I. T. Arrangements have been made for a train service between St.

Louis, Kansas City and points on the new branch.

S. Kaufman has purchased the Petersburg Street Railway in the interest of the Piedmont Traction Co., of Charlottesville, which, as already stated in the Manufacturers' Record, proposes to build an electric line in Petersburg.

The Cincinnati, New Orleans & Texas Pacific Railway Co. has decided to add 500 new cars to its rolling stock. They will include 200 coal cars, 100 furniture cars and 200 for miscellaneous shipments. The Ohio Falls Car Co., of Louisville, Ky., will build the rolling stock.

The Commercial Club at Hartford, Ky., is endeavoring to secure a connection with the Louisville, Henderson & St. Louis Railway by building a branch line from Fordsville, on the railroad referred to, to Hartford, a distance of about nineteen miles. Secretary C. A. Carson, of the Commercial Club of Hartford, Ky., writes the Manufacturers' Record that negotiations are now in progress.

The friends of Mr. Edward W. Thompson will be gratified to know that he has been appointed assistant general passenger agent of the Chicago, Rock Island & Pacific Railroad, with headquarters at Topeka, Kan. Mr. Thompson has been well known in the South as traffic manager of the Baltimore Steam Packet Co. Although he has been in the service of the Rock Island system less than one year, he has been appointed to one of the most responsible positions in its service.

#### Literary Notes.

Last year Charles Dana Gibson illustrated "The People of Dickens" for The Ladies' Home Journal. The pictures were so successful that this year, and during next year, W. L. Taylor, the New England artist who has made such rapid strides in his art, will illustrate "The People of Longfellow," also for The Ladies' Home Journal. The poems selected are "The Psalm of Life," "Hiawatha," "Evangeline," "The Courtship of Miles Standish," "The Children's Hour," "The Village Blacksmith" and others.

That the spy sent by the United States government to Spain during the war should have become the guest of Weyler himself seems incredible. Yet there is nothing more true. The government selected as its agent a man of position who has lived much in Germany. It was necessary for us to have a trained intellect that would make no mistakes. His story is told in the November Cosmopolitan, and the most exciting pages of Dumas' fiction seem tame in comparison with the facts. Crossing the frontier in a first-class carriage, he was by a trifling accident brought into conversation with a young Spanish nobleman; presently who should come along but the son of General Weyler. This acquaintance led to his receiving many attentions from Weyler when they reached Madrid, and the General actually gave up a day to a trip to the Escorial. Imagine this grim arch-enemy of ours laying himself out to please the secret agent whom the government had sent to find out the weak places of Spain. How trifling the demarcation between the position of honored guest and that of spy, who, if discovered, would have been all the more quickly sent to his death! The same issue of the Cosmopolitan contains four pieces of fiction by such famous authors as Frank Stockton, Zangwill, H. G. Wells and the lamented Harold Frederic, but none of it half so exciting in its interest as this true story.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

#### The Market for Cottonseed Products.

New York, N. Y., October 16.

More activity prevails in the cotton-oil market, due in part to the desire to sell as a result of continued arrivals accumulating, prices being correspondingly easier. The home distribution has increased, however, although hardly of sufficient magnitude to offset the augmented production which is now going on throughout the South. While seed which is now reaching the mills is of better quality, very considerable of the quantity crushed to this time has been charged with moisture, due to the excessive amount of rain which fell during the summer months. This applies chiefly to river seed or seed grown in the valley, and the recent drop in values was for the purpose of discouraging shipments. These circumstances would indicate a liberal supply of off oil later on. Under present market conditions prime grades of oil are in a very strong position, although at the moment old prices are asked. The pressure to sell is becoming more marked and current quotations are barely steady. The material difference in price between prime and off grades has stimulated demand for the latter, especially off yellow. With regard to the lard market no improvement has taken place, a liberal supply of hogs at packing centers tending to keep prices down. January lard, Chicago, is quoted at 4.95 cents. Fats are plentiful and easier in price, thus to a corresponding extent affecting cotton oil. Tallow is quoted at 3½ cents, this market, the slow demand from soapmakers giving the market a downward tendency. Crude cotton oil is selling more freely, thus indicating a revival of interest by compounders East and West. A leading Chicago house is reported to have closed a contract for thirty tanks at 13½ cents, Texas. Prime summer yellow is selling in small parcels at 22½ cents, with off yellow two cents less. The following are closing prices: Crude, 18 cents; crude, loose, f. o. b. mills, 12½ cents to 14 cents; crude, loose, 13 cents; summer yellow, prime, 22 to 22½ cents; summer, off grades, 20½ to 27 cents; yellow, butter grades, 25 to 27 cents; white, 27 to 27½ cents; winter yellow, 27 to 27½ cents, and salad oil, 28 to 29 cents. Liverpool refined is steady at 15s. 6d. The seed market is advancing in the United Kingdom, owing largely to political affairs and rising freights, spot parcels in London selling at £5 10s.

Cake and Meal.—Cake is nominally quoted at this market, \$20 per ton being quoted for meal at New York rate points per short ton and \$20.50 Boston. Abroad cake meets a steady trade at advanced prices or at 2s. 6d. to 5s. per ton higher. The strong position of the Egyptian seed market and the comparatively light stocks of imported feeding stuffs tend to strengthen the market for feeding stuffs of all descriptions in England.

#### Cottonseed-Oil Notes.

The Richmond Cotton Oil Co., at Chattanooga, Tenn., is now running day and night, operating at its fullest capacity, which is 2800 barrels of oil per day. The force of men employed has been increased to over seventy-five.

It is stated that the National Cotton Oil Co., whose mill at Corsicana, Texas, was destroyed by fire two years ago, will rebuild the new mill to have a daily capacity of 100 tons of seed. It is not

known when the work on the new plant will begin, but it will be at a date that will cause the completion to be in time to handle the seed crop of 1899.

W. H. Boone has just completed for the Dixie Cotton Oil Co. a deep well, equipped with one of the largest Cook pumping engines. The water is used for the requirements of the mill, as well as for 1000 head of cattle now being fed by the company.

At Texas points cottonseed products are generally steady and mills working up to their full capacity. The Houston Post quotes prices as follows: Prime crude oil, 13 to 14 cents; prime refined summer yellow, 16 to 17 cents; cottonseed meal, \$12.50 to \$13, and cottonseed cake, \$12 to \$12.50; linters—A, 1¼ to 2 cents, all f. o. b. mill, interior points in State.

The market for cottonseed products in New Orleans is steady, with a fair domestic demand, and a considerable volume of foreign business reported. Refined cottonseed oil, prime, in barrels, per gallon, at wholesale or for shipment, 21 cents for export; off refined cottonseed oil, 19½ to 20¼ cents for steamer. The following are receivers' prices: Cottonseed, \$5 per ton of 2000 pounds delivered on river bank from New Orleans to Memphis for good, sound seed; cottonseed meal, jobbing per carload at depot, \$16.50 for short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$18.75 to \$19, new crop; oilcake for export, \$18.75 to \$19, new crop, per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime, new crop oil, crude, 13 to 14 cents per gallon, loose f. o. b. tanks here; in barrels, 15 to 16 cents; cottonseed hulls delivered, per 100 pounds, according to location of mill, 7½ to 10 cents; linters, according to style and staple—A, 2¼ cents; B, 2½ cents; C, 2½ cents; ashes, none.

The annual report of the American Cotton Oil Co., just issued, shows profits for the year of \$1,559,661.55. Deducting debenture interest, \$245,440, leaves a net profit of \$1,314,221.55. Deduct dividends on preferred stock, 6 per cent. per annum, of \$611,916, and dividend on common stock, 3 per cent. per annum, of \$607,111, or a total of \$1,219,029, a balance is shown of net profits for the year carried to general profit and loss account of \$95,192.55. The report states in part the following: "The opening of the fiscal year was marked by the prevalence of yellow fever in a large portion of the territory over which the business of the company extends, and the commencement of operations at the mills was retarded by the enforcement of quarantine regulations which interfered with the transportation of both cottonseed and mill products. The result of the recent war will be, when time permits a commercial readjustment to suit the new conditions, a greatly improved relation to the West Indian markets and better access to other tropical and semi-tropical populations, all of which are by nature and habit good customers for edible oils. Already your business with the West Indies and with Central America shows a gratifying increase since the removal of the obstructions to commerce caused by war. The cotton crop for the year was the largest on record. Your company crushed more cottonseed than in any previous year. The volume of business increased 17½ per cent. in value and 27 per cent. in quantity over the previous year. These facts supply evidence that the cotton-oil industry is permanent and growing. The export business of the company has been materially increased during the past year as compared with recent years, and new markets are being assiduously sought and cultivated in every quarter."



## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

## LUMBER MARKET REVIEWS.

## Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., November 17.

There has been a moderate business during the past week in the local lumber market, and the demand for certain lines of material has improved. The general business, however, is not up to the mark, and while the improvement in nearly all channels is slow, operators do not look for much activity during the winter months. Receipts of North Carolina pine are fair, there being a good stock of air-dried yellow pine on the market. Buyers, however, are not purchasing except where lots are offered at bottom prices. Boxmakers are buying more freely, and planing mills have been in the market to a certain extent. The demand for kiln-dried North Carolina pine is fair and values firm, with a moderate offering. In hardwoods stocks at producing points are reported light, and in the local market the supply is also limited, while values are generally firm. Oak and poplar are selling freely to furniture manufacturers, and there is some demand for walnut and ash. Woodworking concerns in hardwoods are generally busy and orders are more numerous. The foreign export trade is dull and shippers are not very active at the moment, while prices are lower on the other side and freight rates at outside figures.

## Savannah.

[From our own Correspondent.]  
Savannah, Ga., November 14.

During the past week there has been considerable activity in the local lumber market, and the impression among dealers is that prices will continue firm under a good demand, which shows no sign of falling off. The government has entered the market and is said to be soliciting bids for the delivery of nearly 25,000,000 feet of pitch-pine lumber. Over 20,000,000 feet is to be shipped to Cuba and Porto Rico. Savannah firms are said to be figuring on the specifications, and if they decide to bid, the greater part of this lumber will probably be shipped from this port. During the past week there has been a demand from the usual sources, and 1,884,132 feet of desirable grades of lumber were shipped, of which 933,039 feet went to New York, 716,640 to Philadelphia, 160,353 feet to Baltimore and 74,100 feet to Boston. Advices from interior milling sections continue satisfactory and all mills of any size are generally working up to their full capacity. The market for lumber freights continues steady, with no change in rates. Among the charters for the week reported in New York were the following: Schooner Lizzie B. Willy from St. Simons to New York with lumber at \$4.75; schooner Carrie Strong from Savannah to New York with lumber at \$4.75, option Newark, N. J., \$4.87½, and brig H. B. Hussey from Brunswick to Norwich, Conn., with lumber at \$5.

## Charleston.

[From our own Correspondent.]  
Charleston, S. C., November 14.

The transactions in lumber during the past week at this port have shown a greater volume of trade and the market is improving. The demand for desirable lumber is steady, and shipments to Northern and Eastern ports are increasing. There is also some foreign trade doing, and, under present facilities for foreign lumber exporters, this branch of the in-

dustry is likely to show some expansion. The Charleston Transport Co. has a line of steamers in service between this port and Manchester, Liverpool, Hamburg and Bremen, carrying all manner of Southern products, notably lumber. A new and substantial wharf has been built by the South Carolina & Georgia Railroad, with a frontage of about 500 feet and a depth of 100 feet, thereby greatly extending and facilitating the export and coastwise trade of the road and city. At nearby milling points there is considerable activity, and mills have orders sufficient to keep them employed until the new year. There is a scarcity of logs in some instances, and the Gardner & Lacey Lumber Co.'s plant at Georgetown was obliged to shut down for several days for want of timber. The market is firm for all desirable grades of lumber, and stocks are generally light. The following shipments were reported during the past week: For Boston, schooner Harold B. Cousins with 300,000 feet of lumber, and schooner T. W. Dunn with 510,000 feet. The schooner Wilson & Hunting cleared for New York with 324,000 feet of lumber. The total shipments of lumber from this port since September 1 to November 11 amounted to 4,374,000 feet, against 8,135,243 feet last year. Lumber freights are steady, with rates unchanged, and the offering of handy-sized tonnage light.

## Mobile.

[From our own Correspondent.]  
Mobile, Ala., November 14.

The week under review has been rather more active in the lumber channel of trade and the demand from South American ports is showing increased strength. During the past week over 2,000,000 feet left the port, over 1,000,000 feet being for Buenos Ayres and Rosario, in the Argentine Republic. The remainder went to Mexico and the West Indies. The shipments of lumber so far this year are quite up to that of last year, and at the moment mills at all nearby points in this State and Mississippi are busy on orders. Stocks are not accumulating to a great degree, and prices continue firm. The movement in timber is very light at present and there is very little demand at the moment. Shippers are handicapped on account of extreme rates of freight and are cautious in their movements. Prices for sawn timber are steady at 11 cents per cubic foot, 40-foot basis. There is some inquiry for hewn timber, and prices are steady at 12 cents per cubic foot, basis of 100 cubic feet, average B1 good. Cypress logs are in good demand at 6 to 9 cents per cubic foot. There is a good demand for pine saw logs at \$4 to \$7 per thousand feet. The freight market is firm, with rates unchanged. Among the charters reported are the following: Schooner J. L. Hall from Mobile to Havana with lumber at \$5; Norwegian bark Drot, Pensacola to picked ports in the United Kingdom with sawn timber at 95s.; Norwegian bark Orion, same to London at 100s.; Norwegian bark Gudrun, same to Cherbourg at 103s. 9d.; Norwegian bark Alert, same to United Kingdom or Continent at 103s. 9d.; Italian bark Oreb, same to Genoa at 95s., and Austrian bark Ilia, same at 96s. 3d. The steamship Candora, now at New Orleans, has been chartered to carry a cargo to Cuba. She will take 150,000 feet of lumber and other cargo. A representative of the Wagner Lumber Co., the shipper, will accompany the vessel.

## Lumber Notes.

The McGregor Stave Factory at Florence, Ala., owned by J. A. McGregor, will double the capacity of its plant and increase the output to 5,000,000 staves per year.

The mammoth new cypress mill of the Watson Cypress Co., of Palatka, Fla., was started up on the 7th inst. When running at its full capacity this mill is capable of cutting 100,000.

The stables of the Moore & McFerrin Lumber Co., of Memphis, Tenn., with their contents and 1,500,000 feet of lumber, were destroyed by fire last week. The loss is estimated at \$15,000 to \$16,000, with the amount of insurance not stated.

Mr. S. O. Brown, representing the Chess-Wymond Cooperage Co., of Tompkinsville, Ky., has purchased a large tract of timber land in Mississippi and will proceed at once to clear it of stave timber, employing a number of laborers for that purpose.

The Richmond, Petersburg & Carolina Railroad Co. is having a connection of that road made with the Norfolk & Western at a point just beyond Petersburg, Va. This connection is for the benefit of lumber shippers over the road to the water terminus at Petersburg.

The Tyler County Land & Lumber Co. was granted a charter last week. The capital stock is \$25,000, with principal place of business at Houston, Texas. The plant is located at Doucette, Tyler county, Texas. The incorporators are J. T. Campbell, J. L. Campbell and Y. W. McNiel.

The steamer Flora Swan, which has a contract to transport 13,000,000 feet of lumber from Sevier county, Tenn., arrived at Knoxville, Tenn., last week with 90,000 feet of lumber and other freight. The cargo was for the Stone Lumber Co., of Cincinnati. It will be shipped by rail to Cincinnati.

Messrs. John L. Hart and H. L. Watts have formed a copartnership under the firm name of Hart & Watts, for the purpose of conducting a general lumber business in Norfolk. Mr. Hart has for some years been prominent in the lumber trade of the port, and Mr. Watts is well known in insurance circles.

An amalgamation of twenty-four planing-mill plants, involving about \$15,000,000 in capital, is now being planned at Chicago among leading representatives in the Northwest. The company when formed will be capitalized at \$10,000,000. The mills will be purchased outright and stock, bonds and cash be given for them.

The Buyers and Inspectors' Association of Memphis lumber dealers held their semi-monthly meeting in that city last week. The members present reported dry stock of lumber as almost unknown. Logging in the woods is very bad, the frequent rains restricting operations, and hauling to railroads and rivers is impossible. The membership, finance and furnishing committees were appointed.

The officials of the Central Coal & Coke Co.'s large saw mill at Texarkana, Ark., have a committee appointed to wait on the President at Washington, D. C., for the purpose of defeating the timber bill lately established in the Choctaw Nation. This company manufactures 150,000 feet of lumber a day and has large timber interests in the Nation, and is the owner of the Arkansas & Choctaw Railway. The passage of this law will curtail its output of lumber and otherwise damage its business.

The parties who purchased the timber and agricultural lands of the Tensas basin levee board completed the transaction on the 10th inst. at Monroe, La., by having the sale and deeds recorded. Those forming the syndicate have organized a company under the laws of Michigan, to be known as the Tensas Delta Land Co. The following are the officers

of the company: J. D. Lacey, president; S. Wood Beal, secretary, and A. G. Hodenpyl, treasurer. Mr. Beal is Mr. Lacey's partner, with offices in New Orleans and Grand Rapids, Mich.

The following lumber clearances were reported last week from Jacksonville, Fla.: Schooner William H. Albury for Hope Town, Abaco, British West Indies, with 22,000 feet of boards, deals and planks, 10,000 shingles and other cargo; schooner Lizzie H. Patrick for Philadelphia with 330,000 feet of pitch-pine lumber; steamship Seminole for New York with 200,000 feet of lumber, 1500 bundles of shingles and other merchandise, and the steamship Iroquois for the same port with 100,000 feet of lumber and 5000 bundles of shingles.

## Wood-Preservative Chemicals.

A question of great importance to engineers in general is that relating to the preservation of wood. Many have searched for the ideal method of preservation only to meet with disappointment, and have despaired of seeing the invention of such a method in time to assist in saving our rapidly-disappearing timber supply.

In a paper entitled "The Ideal Wood Preserver: Is it Possible and Obtainable?" (which was read before the Engineering Association of the South on April 8, 1897), this subject was exhaustively treated by Mr. C. S. McKinney, of Nashville.

The questions raised by the wide circulation which the paper referred to had among the engineers of this country resulted in the appearance of a supplement to the reading, devoted to the attention of wood-preservative chemicals derived from coal-tar products. The further and complete chemical consideration which is given in the supplemental paper is of a most interesting character to any who may be interested in any way in the preservation of wood from decay.

One of the most fruitful fields ever opened to chemists has been that of coal-tar products, and though the history of this investigation is already so wonderful, the field is not exhausted and new discoveries in it are being made every day.

Among the many compositions that have emanated from this development of the use of the coal-tar products is what is known as "Carbolineum Avenarius," a paint used for the purpose of protecting wood from decay.

It is a well-established fact that all forms of putrefaction result from the presence of microscopic animals or vegetables, which, during their vitality, decompose or destroy organic substances. In the case of wood the source of infection is not in the material itself, but in the microscopic spores floating in the atmosphere, which, coming in contact with certain albuminous substances in the wood, under favorable conditions of heat and moisture, are rapidly developed and propagated. To prevent this an antiseptic applied to the external surface of the wood is sufficient.

The germ-killing properties of "Carbolineum Avenarius" are remarkable and persistent.

However, this wood preserver is not by any means a mere experiment on the market, as it has been in use for twenty-seven years, and, thoroughly tested in all parts of the world, has more than proven the claims that were made for its wonderful preservative qualities.

The Carbolineum Wood Preserving Co., of 21 Cliff street, New York city, is sole agent for "Carbolineum Avenarius," and further particulars regarding same can be obtained from it.



## MECHANICAL.

## Magnetic Lamp Holder.

The holders illustrated are for use where direct current is used, and are extremely handy. Being a magnet, they will adhere to any piece of iron or steel

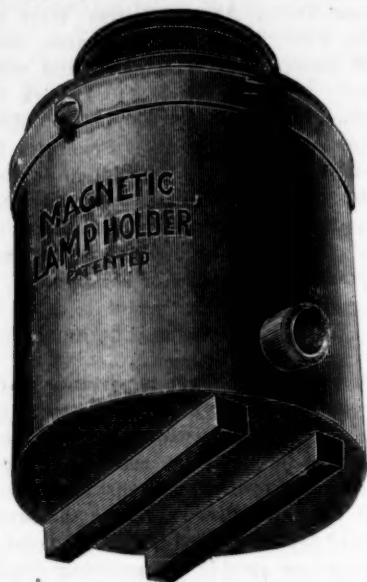


FIG. 1.

in any position. They are very useful in machine shops, as they can be so placed as to have the light shine exactly where wanted when working with lathe, planer, drill and other tools.

In boiler shops its use does away with

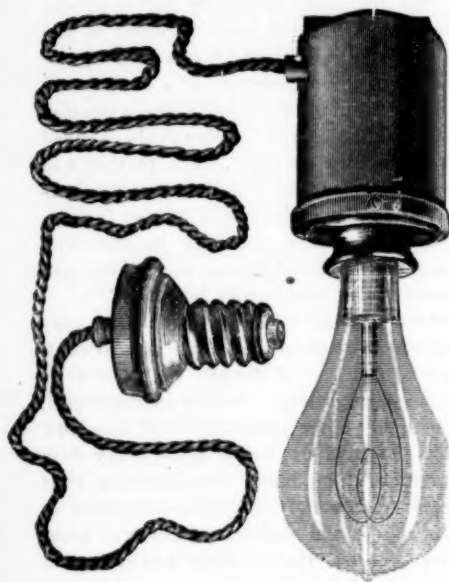


FIG. 2.

torches, as it can be carried inside the boiler.

In railroad shops it is particularly useful when repairing locomotives, as its position may be changed at will, and will be found useful in many other ways about the shop.

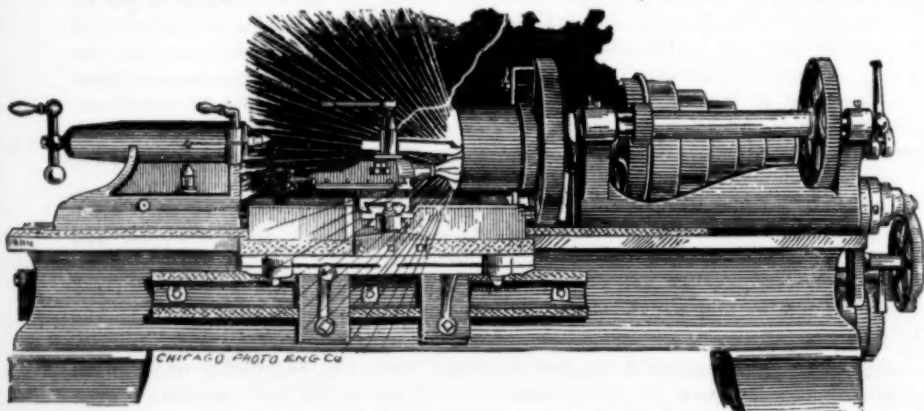


FIG. 3.—SHOWING HOLDER ATTACHED TO LATHE.

There are many places where a portable magnetic holder will be found useful, viz.: Engine and boiler room, aboard steamships and steamboats, about elevators when making repairs, in mines, base-

ments, cellars, bank vaults—in fact, all places where light is needed.

Its use eliminates the dangers from using candles or torches, as it is impossible for it to set fire to anything, and hence decreases your insurance.

For other information address Messrs. Jenkins Bros., 71 John street, New York.

## New Tapestry Carpet Loom.

Tapestry carpets rank amongst the most important of ornamental textile fabrics. The demand for tapestry carpets is found in the need of a cheaper and more economical imitation of what is known as Brussels carpet, the ordinary observer being quite unable, except from a very close examination, to distinguish between a tapestry and a Brussels carpet. This feature, in connection with the economical production of a tapestry compared to a Brussels carpet, will readily

pile fabric (loops not cut), and for which reason a needle with a smooth end (no knife attached) is employed. The use of either one or the other needle results in the woven fabric in either terry or velvet pile.

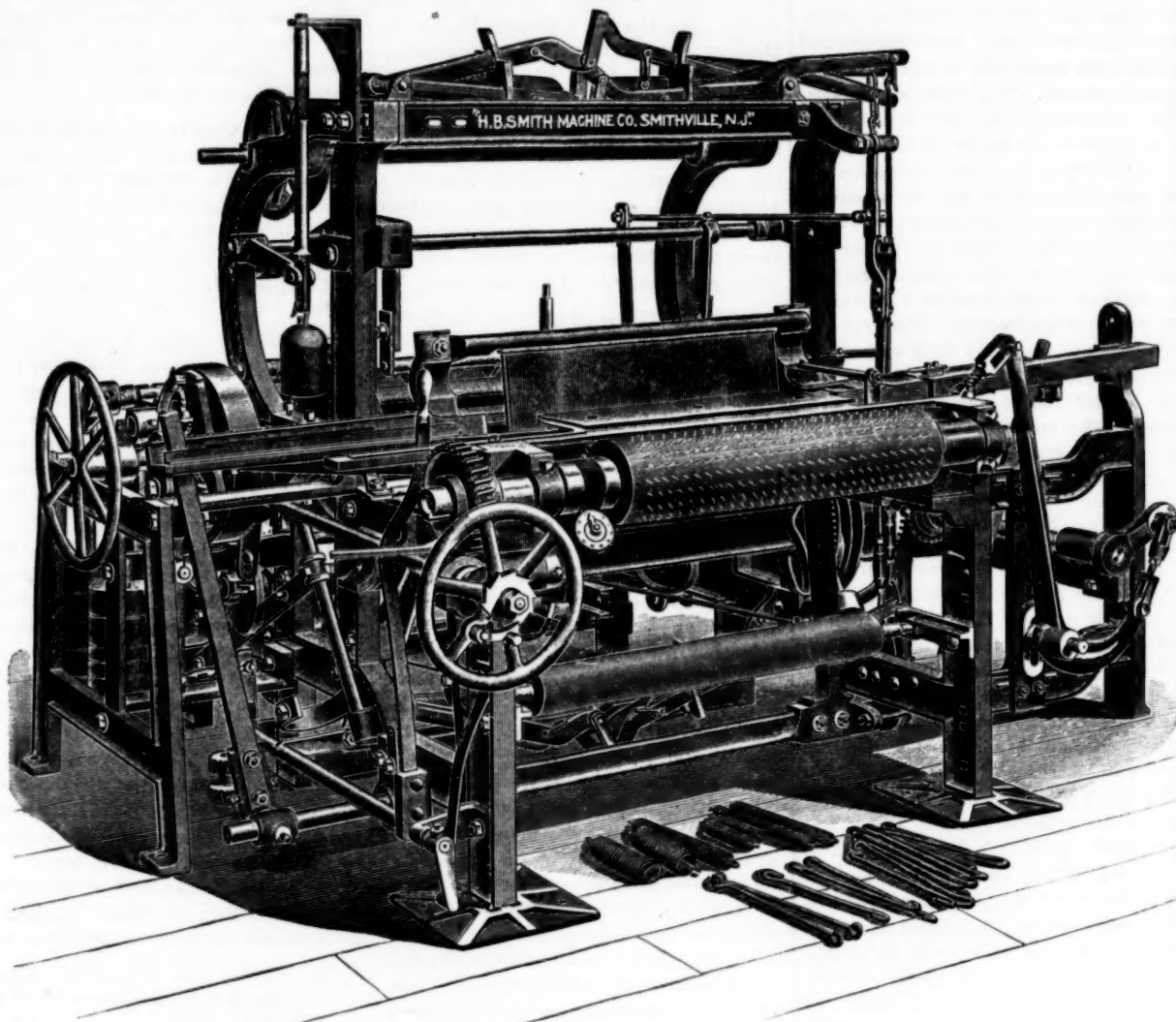
In the new loom we find the improved wire carrier placed in a horizontal position, whereas in the old style of looms it was swinging. This radical improvement does away with the groove cut for the wire carrier to slide in. The new device will take a wire and dwell for six inches before carrying the wire over, whereas the old arrangement did not take the wire until it left work. This will readily show that the new device is a close and accurate motion.

The bevel-wheel for the wire-motion drive in the new motion is a coupling keyed on independent of the rim, in consequence of which you can get in the new

machinery and a credit to the builders.

Examining the new loom we find that the shafts which carry the fine chain and the stuffer warp have now a four-inch hub and are fastened on with two one-half-inch set screws on quarters, whereas in the old motion they were keyed on and thus weakened the shaft. Besides, in the new motion the hub prevents the beam from interfering with the ratchet motion, which is another important improvement to the new loom.

The let-off motion for the pile warp is also of an improved character, the bracket for the pile weights being now made of wrought iron, whereas in the old loom the same was of cast iron, simply strengthened by an insert. When in the old style the friction band should slip off or break, or the weaver lift weights and let them drop (by accident) suddenly, the bracket in the old loom was sure to go—a



A NEW TAPESTRY CARPET LOOM.

explain the importance of the new tapestry loom now offered.

Besides weaving tapestry carpets, the loom also weaves velvet carpets, by simply using different needles from those

motion any fraction of a tooth without altering your treadle-box, whereas in the old motion nothing else but a solid gear was keyed on the shaft, and any change tended to destroy key and key-way, besides resulting in considerable loss of labor, being compelled to also alter carrier-cam and pinion-wheel for treadle-box.

Where the picking pulley is keyed on the crankshaft, in the new motion the key is driven in. In the old method the wheel was driven on the key, in consequence you had in the old motion to take the crankshaft out of loom to be able to refit a new key. In the new device a new key can be refitted right in the loom. There is no necessity for going to the trouble, labor and expense of taking out the crankshaft.

A tapestry or velvet carpet loom is a heavy piece of machinery—producing a hard, heavy weaving fabric, the filling and the wires being rammed in. The warp used is heavy in weight. Thus every part of the loom, every motion, shaft, gear, lever, etc., must be solid and strong, yet without being clumsy. In this regard the new loom is a masterpiece of textile

feature impossible to occur in the new loom.

The present loom is built for weaving "two-shot" velvet carpets, besides weaving tapestry carpets; however, the maker, the H. B. Smith Machine Co., of Smithville, N. J., is now arranging the loom also to weave "three-shot" velvet carpets, and will soon also have this loom on the market.

## Large Corundum Plant.

Capt. A. H. Isbel, of the Isbel Corundum Co., is quoted by the Asheville (N. C.) Citizen as saying that his company is getting ready for active operations in preparing corundum for the market. Its \$20,000 plant on Shooting creek, near Murphy, N. C., is expected to be ready for work by December 1. The machinery is now on the ground. The plant will turn out, ready for the market, about three tons of corundum a day, and this product will sell for about seven cents a pound. The product is used mainly in the making of emery wheels, and is marketed in Boston, Philadelphia, Detroit and other of the large cities of the North and West.



# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with every one interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

## ALABAMA.

**Anniston—Pipe Foundry.**—The Hercules Pipe Co. (formed by Edmund L. Tyler & Co.) has purchased the old bloomery plant at Anniston. The new owner will refit the works for the production of pipe, and plans are now being prepared for the alterations by Charles M. Noble. An additional building 30x60 feet will be erected.

**Bessemer—Wagon Factory.**—Joseph Wilson, of Indianapolis, Ind., and P. B. Bradley, of Bessemer, will purchase site and building and establish a wagon factory. Address P. B. Bradley.

**Birmingham—Iron Furnaces.**—It is stated that three New York capitalists and one Birmingham capitalist have purchased forty-five acres of land near Birmingham, on which they will construct at once two iron furnaces of 400 tons daily capacity each.

**Birmingham—By-product Chemical Works.** The Birmingham By-Product Manufacturing Co. has been incorporated, with a capital of \$50,000, by P. H. Smith, of Atlanta; P. B. McKinney, of Atlanta, and A. A. Smith and G. P. Bondurant, of Birmingham. The company has purchased a site of four acres at Ensley City, near the Semet-Solvay by-product coke plant, and will at once enter into the manufacture of tar, ammonia, sulphuric acid, aniline dyes, anti-camnia and other chemicals which are extracted from coal. The main supply of raw material will be obtained from the Semet-Solvay plant, which is constructed so as to save the gas generated in the manufacture of coke, and coal tar will also be secured from gas works throughout the State.

**Birmingham—Pipe Foundry.**—The Addystone Pipe & Steel Co., of Cincinnati, Ohio, which owns a pipe foundry near Cincinnati of 350 tons daily capacity, and one at Newport, Ky., of 250 tons capacity, writes the Manufacturers' Record that it is proposed to build a new plant at Birmingham, and for that purpose the president of the company is now investigating sites at that city. It is reported from Birmingham that the plant to be built there will cost \$750,000.

**Birmingham—Cannery.**—J. C. Shand, of Davenport, Iowa, contemplates locating a cannery at Thorsby, near Birmingham.

**Birmingham—Real Estate.**—Incorporated: The Investment & Real Estate Co., by Sol Haas and J. W. McQueen, of Birmingham; T. B. Lyons, of Charlottesville, Va., and Joseph Bryan, of Richmond, Va.; the capital stock will be \$50,000; purpose, to deal in mineral and other lands.

**Blossburg—Coke Ovens.**—The Tutwiler Coal & Coke Co. is constructing a 60-beehive coke plant and a 400-ton washer.

**Florence—Iron Furnace, etc.**—J. Craig McClanahan, of West Point, Tenn., has purchased for \$30,000 the property of the Spathite Iron Co.; said property includes an iron furnace at Florence, 1100 acres of mineral land in Wayne county, Tennessee, 375 acres of mineral lands in Lawrence county, Tennessee, and rights on 3300 acres of mineral lands in Lawrence county.

**Florence—Stave Mill.**—J. A. McGregor has completed improvements to his stave mill, doubling its capacity; output per annum is 5,000,000.

**Fort Payne—Steel Plant.**—The purchase of the Alabama Steel Co.'s two furnaces at Fort Payne by individuals, as reported lately, was made for the Birmingham Rolling Mill Co., of Birmingham, and the plants will be put in operation at once.

**Gadsden—Electric-power Plant.**—The Alabama Light & Power Co. will build a power plant to cost \$25,000 to furnish electric railway power, etc.

**Mobile—Cotton Mill.**—It is reported that Dumires & Waters are contemplating the establishment of a cotton mill.

**Mobile—Cotton Mill.**—It is said that L. H. Hammel is interested in the proposed \$100,000 cotton-yarn mill recently referred to.

**Montgomery—Mercantile.**—Mrs. Mary Paul Foster, W. E. Rosser, H. M. Butler and W. A. Foster have incorporated the Foster Company to conduct a grocery business; capital stock \$4000.

## ARKANSAS.

**Eldorado—Lumber Company.**—The Norphlet Lumber Co. has filed articles of incorporation, capital stock \$10,000. The incorporators are A. R. Powers, president; F. W. Harris and T. C. Murphy.

**Little Rock—Trading-stamp Company.**—A trading-stamp company has been formed, with a capital stock of \$10,000 and Joe P. Quinn, president; C. L. Kramer, vice-president; M. M. Cohn, treasurer, and M. A. Stone, manager.

**Monticello—Water Works.**—Walter G. Kirkpatrick, of Gallatin, Tenn., will prepare plans for a system of water works for Monticello.

**Pine Bluff—Carbon Lighting Company.**—The Kilsen Hydro-Carbon Light & Heat Co. has been incorporated, with a capital stock of \$100,000 and the following officers: Z. Orto, president; Isaac Dreyfus, vice-president; J. Harvey, secretary and treasurer. An office building has been secured and the company will immediately begin operations. The directors are Isaac Dreyfus, John W. Crawford, Sebastian Gelsreiter, N. B. Trulock, J. W. Withers, H. W. Perry and Z. Orto. Address the secretary.

**Sebastian County—Coal Lands to Develop, etc.**—Gen. B. W. Green, of Little Rock, Ark., has purchased 2000 acres of coal lands in Sebastian county for development. Railways will be extended into the property, so that active developments may be inaugurated in the near future.

**Texarkana—Stave Mill.**—M. T. Bailey, of Saginaw, Mich., will establish in Texarkana a plant for the manufacture of staves, etc., investing about \$100,000 and employing seventy-five men.

## FLORIDA.

**Gulf Hammock—Fiber Factory.**—The Gulf Hammock Fiber Co. is about to place the machinery in its fiber factory, the building having been completed.

**Kissimmee—Electric-light Plant.**—An election will be called to vote upon granting a 10-year franchise to J. M. Bailey for the construction of the electric-light plant recently noted as contemplated.

**Mayo—Telephone Lines.**—Incorporated: The Luraville & Suwannee River Telephone Co., with \$3000 capital stock, to build, buy and own telephone lines in Lafayette, Hamilton and Suwannee counties. The incorporators are Thos. I. McIntosh, Sidney V. Hough, B. S. Fisher, W. H. Cox, L. T. Boatwright, M. C. Reiluck, E. P. Groover, Wm. T. Dees and Milton J. Bryan.

**West Tampa—Water Works.**—All arrangements have been completed, ensuring the water works noted recently, and bids are being asked; M. E. Gillette, chairman.\*

## GEORGIA.

**Canton—Water Works.**—We have been informed that it is not likely the movement for a water-works system will result definitely at present.

**Carlton—Cotton Mill.**—Jos. E. Watson is said to be interested in a cotton-mill project.

**Commonwealth—Cotton Mill.**—It is reported that a weaving mill is in course of construction. F. J. Loisel can be addressed.

**Dublin—Cannery.**—The establishment of a cannery is talked of. H. M. Stanley can give information.\*

**Eatonton—Cigar Factory.**—Knight & Lopez will establish a cigar factory.

## KENTUCKY.

**Covington—Tobacco Company.**—The Spullman-Ellis Tobacco Co. has been incorporated, with a capital stock of \$10,000.

**Georgetown—Ice Factory.**—The Georgetown Ice Co. has let contract for an additional ice machine, doubling its capacity.

**Grayneville—Fluor-spar Mill.**—The Fluor-spar Co., of St. Louis, Mo. (307 Pine street), is erecting a mill in Grayneville, as was reported last week; company writes that the mill consists of frame building 40x32 feet, 12-foot story, four runs of stones, two crushers, elevators, bolting, etc.; capacity 300 barrels daily.\*

**Hartford—Packet Company.**—The Hartford & Evansville Packet Co. has filed articles of incorporation, with a capital stock of \$6000. John C. Riley, James W. Ford, A. D. White, E. O. Ross, T. L. Griffin and R. E. L. Simons are the incorporators.

**Lexington—Hemp Factory.**—J. Percy Scott will establish a hemp factory; building, 150x50 feet, will be erected at Fourth and Blackburn avenues.

**Louisville—Cotton Mill.**—Rufus J. Gaugh has established a mill-waste factory on East Main street, in the Kiel Building.

**Louisville—Hotel Company.**—The Rufer Hotel Co. has been incorporated by John C. and C. C. Rufer and Harry W. Russell, with capital of \$12,000.

**Maysville—Rolling Mills, etc.**—It is stated that Ohio parties have been corresponding with the mayor relative to the establishment of a rolling mill and horseshoe factory in Maysville; proposed plant to cost \$100,000 if located. Address "The Mayor."

**Paducah—Telephone System.**—Henry Blederman, who lately obtained telephone franchise, is organizing a company to install system.

## LOUISIANA.

**Louisiana—Timber Lands, etc.**—The syndicate noted last week as having purchased 800,000 acres of lands in Northern Louisiana intends to develop the property thoroughly. Saw mills will be erected to cut timber and colonies will be located. The Tensas Delta Land Co. has been organized for the carrying out of the proposed developments, with J. D. Lacey, of Grand Rapids, Mich., president; S. Wood Beal, secretary, and A. G. Hodenpykl, treasurer. Others interested are J. D. Lacey, White & Friend Lumber Co., R. C. Luce & Sons, A. G. Hodenpykl and A. J. Tucker, of Grand Rapids, Mich.; Hackley & Hume, of Muskegon, Mich.; and J. W. Brown, of Memphis, Tenn. Address the last named for further information.

**Monroe—Electric-light Plant, Water Works, etc.**—The city has voted affirmatively on the bond question lately noted. Bonds for \$155,000 will be issued. There will be built water works and electric-light plant to cost \$60,000, sewerage system to cost \$30,000, school building to cost \$10,000, and \$40,000 will be expended in streets and pavements. Address "The Mayor."

**New Orleans—Sewerage System.**—M. A. Davitt & Co., of Chicago, have submitted to the city council a proposition for the construction of the proposed sewerage system which has been in consideration. The plan includes the organization of a company, the granting of franchise, etc. Address "The Mayor."

**New Orleans—Sewerage System.**—The subject of the proposed \$2,000,000 sewerage system continues to be agitated in the city. The committee of the council having the

matter in charge will consider it at a meeting to be held this week. John S. Rainey, 714 Union street, can be addressed.

**St. Martinville—Ice Factory.**—Albert F. Rousseau contemplates the erection of an ice factory.\*

**Thibodeaux—Electric-light Plant.**—The city has voted affirmatively in the matter of an electric-light proposition. Address "The Mayor."

## MARYLAND.

**Baltimore—Liquor Company.**—Incorporated: The Garrett-Williams Company, for carrying on a rectifiers' and wholesale and retail liquor dealers' business, by Robert Young Garrett, Henry G. Williams, William Graham, Charles S. Hosler and William R. Armstrong; capital stock \$100,000.

**Baltimore—Cigar Factory.**—The M. S. Pachholder Co.'s new warehouse, five stories high, will be connected with its present factory and utilized in extension of manufacturing; 300 more employees will be engaged, making 700 in all.

**Baltimore—Grease Factory.**—Michael J. Conway (34 St. Paul street), J. P. Harrington and others have purchased site on which to build a four-story factory for the production of axle grease and machine grease.

**Baltimore—Steamship Line.**—The West India Trading Co. has been incorporated by Robert Garrett, John W. Garrett, Charles Nitze, Emil Rautman and John J. Hurst, for the purpose of establishing a steamship line from Baltimore to West Indian ports, commencing with Ports Antonio and Maria, in Jamaica; company will also conduct fruit business on a large scale. Address Robert Garrett & Sons, bankers.

**Baltimore—Manufacturing Company.**—The Automatic Machine Manufacturing Co. has been incorporated, with a capital stock of \$500, by J. A. Houghton, of Dover, Del.; George W. Smith, C. B. Penrose, George C. Morrison and Fred D. Williams, of Baltimore. Address George C. Morrison, Equitable Building.

**Baltimore—Boiler and Engine Company, etc.**—The Chesapeake Boiler, Engine & Yacht Co. has been incorporated, with capital of \$500, by G. E. Price, S. L. Flournoy, L. A. Barber, H. L. Flournoy and H. B. Smith, all of Charleston, W. Va. Address Flournoy, Price & Smith, Charleston, W. Va., attorneys.

**Baltimore—Bottle-cap Factory.**—The Waterman Spring Bottle Cap Co. has been incorporated by William J. Farrell and James Kearney, of New York; Frank W. Waterman, Sherwood B. Royston and Clarence J. Boyd, of Baltimore, with a capital stock of \$200,000, to manufacture patented articles. Address Frank W. Waterman.

**Baltimore—Glass Factory.**—The Carr-Lowery Glass Co. will rebuild at once its burned factory, which was destroyed at a loss of \$90,000. The new plant will cost about \$100,000 and employ 300 hands, the same as the burned one.

**Baltimore—Electric-light Plant.**—Efforts are being made to combine the Brush Electric Co., the Northern Electric Co. and the Edison Electric Illuminating Co., and to build an entirely new and most completely modern lighting plant; Jas. F. Morrison, manager, Northern Electric Co., 15 South street.

**Charlton—Grain Elevator.**—Samuel Cushwa will rebuild his burned grain elevator.

**Denton—Water Works.**—The construction of water works is contemplated, as reported recently, but nothing definite regarding the matter has transpired; Harry A. Roe, president of council.

**Hagerstown—Chair Factory.**—It is stated that the Hagerstown Land Co. is negotiating with the Smith Flexible Chair Co., of Washington, D. C., for the removal of the latter company's factory to Hagerstown.

**Washington, D. C.—Dairy Plant.**—A company will build a dairy plant, to consist of four-story building, 100x200 feet, equipped with machinery for handling and bottling milk, etc. N. T. Haller will prepare the plans for the structure.

## MISSISSIPPI.

**Columbus—Water Works and Sewerage System.**—The city will decide by vote on November 29 regarding the construction of the proposed water works and sewerage system. Address "The Mayor."

**Greenwood—Water Works and Sewerage.**—The city continues to have in view the con-



struction of sewerage and water systems. J. L. Gillespie, city clerk, can be addressed. Gulfport—Drainage, etc.—The city will issue bonds for \$15,000, of which \$10,000 will be used on the streets and drainage. Address "The Mayor."

#### MISSOURI.

Central City—Lead and Zinc Mines.—A. O. Nichols, of Joplin, and C. H. Worth, of Moscooke, I. T., have purchased for \$25,000 a lead and zinc mine lease near Central City.

Clarence—Electric-light Plant.—It is stated that a vote has resulted in favor of the \$5000 of bonds proposed for electric-light plant.

Independence—Electric-light and Ice Plants.—W. T. Felton, of Kansas City, and associates contemplate the erection of the electric-light and ice plants recently reported. Franchise has been applied for and until it is known whether it will be granted or not nothing definite will be done.

Joplin—Mining Company.—Incorporated: The Lehigh Mining Co., capital stock \$100,000, by G. W. Layne, W. C. Freeman and James B. Young.

Macon—Electric Plants.—The Trans-Mississippi Electric Light & Power Co. has been incorporated, with a capital stock of \$30,000, by Col. F. W. Brees, J. F. Schaefer, of Kansas City, and Charles E. Roel, of St. Joseph, for the purpose of establishing and managing electric-light and power stations.

St. Louis—Catering.—Incorporated: The Thatcher Cafe & Catering Co., capital \$12,000, by Alberta Thatcher, S. B. Dingley and S. J. Willard.

St. Louis—Ice Rink.—The St. Louis Artificial Ice Rink Association has obtained permit for the erection of a two-story rink to cost \$17,500.

St. Louis—Catering Company.—Incorporated: The Thatcher Cafe & Catering Co., capital stock \$12,000, by Arthur N. Sager, Samuel J. Hillard, Samuel B. Dingley and Alberta Thatcher.

St. Louis—Furniture Company.—Incorporated: The Hub Furniture Co., capital stock \$40,000, by R. E. Levy, Charles F. Levy and Adolph Wiselthier.

St. Louis—Shoe Factory.—The Hamilton-Brown Shoe Co. will, as was stated last week, erect a new factory; will build a structure to have a space of at least 100,000 square feet, and the product will be a line of goods that has heretofore been bought in Massachusetts by the company; company is at present employing 1200 hands, and new factory will probably require as many.

St. Louis—Machine Manufacturing.—Incorporated: The Novelty & Machine Manufacturing Co., capital stock \$25,000, by Edwin Loker, George M. Brown, Daniel D. Fisher and William L. Loker.

St. Louis—Bottling Machinery.—The Model Bottling Machinery Co. has filed articles of incorporation, capital stock \$10,000. Edward Wagner, Paul Reiss and Max Koehler are the incorporators.

St. Louis—Construction Company.—Incorporated: The Mississippi Valley Construction Co., capital stock \$2000, by Edward Blad, Henry Branch, R. S. Coleman and V. M. Harris.

#### NORTH CAROLINA.

Cedar Creek—Lumber Plant.—H. B. and J. G. Downing will erect plant for the manufacture of juniper and cypress shingles and sweet-gum lumber.

Charlotte—Telephone System.—The Queen City Telephone Co. has organized and elected J. A. Helvin, president; A. G. Brenizer, treasurer, and the following directors: J. A. Helvin, W. F. Steele, Dr. R. S. Cole, A. G. Brenizer, T. W. Hawkins, Dr. W. H. Steele, J. H. Gourley and T. C. Guthrie. System is now being constructed.

Pilot Mountain—Gold Mines.—The Pilot Mountain Gold Mining Co. has been incorporated (at Roanoke, Va.) with capital stock of \$5000, for the purpose of developing gold mines, etc. The officers are A. E. King, president; P. S. Miller, vice-president; J. S. Walker, treasurer, and S. L. Addison, secretary; directors are A. L. Jackson, J. P. Flippo, J. L. Kelly, W. E. Andrew and J. M. Timberlake, all of Roanoke, Va. Address S. L. Addison, secretary, Roanoke, Va.

Roxbury—Flour Mill, etc.—T. L. Walker has completed a corn and flour mill building 30x60 feet. The corn-milling machinery will be put in at the start, and the flouring machinery by next spring.

Rutherfordton—Cotton Mill.—The Levi Cotton Mills Co. has been incorporated, with capital stock of \$20,500, to manufacture cotton cloth, etc. Incorporators are Myer Levi, D. F. Morrow and J. F. Flack. Address Myer Levi.

#### SOUTH CAROLINA.

Bennettsville—Woodworking Factory.—Julius T. Dudley will establish a wood-split-pulley factory, to be operated by water-power.

Timmons—Electric-light Plant and Water Works.—The construction of water works and the erection of an electric-light plant is contemplated, and estimates on the cost of said systems will be obtained. Address D. H. Traxler, chairman of committee.

Walhalla—Water Works.—Capt. R. C. Strother has been granted franchise for the construction of a system of water works.

Walhalla—Water Works.—Franchise for the construction of water-works system has been granted to R. C. Strother, of West Union, S. C.

#### TENNESSEE.

Chattanooga—Wheelbarrow Factory.—A company will be organized to build and operate the wheelbarrow factory reported last week. The plant will include a two-story brick structure 60x100 feet, equipped with machinery, and to employ 100 men at the start. Robert B. Henderson will be president and general manager of the company.

Chattanooga—Household-novelties Factory.—William Thornton has established a factory at 508 Market street for the manufacture of clothes wringers, washing machines, ironing boards and other household novelties.

Chattanooga—Bridge Works.—The Converse Bridge Co. is making improvements to its works, erecting new buildings, putting in new machinery, etc.

Chattanooga—Acetylene-gas Works, etc.—C. H. Caldwell, of Batavia, N. Y., and F. F. Smith, of Chattanooga, are interested in a new acetylene-gas machine, and possibly works for its manufacture will be established in the city. Address at Seventh and Broad streets.

Chattanooga—Candy Factory.—The Asheville Kiss-Me Candy Co., of Asheville, N. C., will establish a factory in Chattanooga, as had been reported recently; about \$25,000 will be invested in the new factory.

Chattanooga—Iron Mines.—The Cherokee Mining Co. has been organized to develop iron-ore fields, and is about to construct a nine-mile railway to its property, so that developments may be commenced. Address company, care of C. W. Howard, Times Building.

Fayetteville—Car Works, etc.—The Nashville, Chattanooga & St. Louis Railway has purchased twenty-three acres of land, to be used for site on which will be erected car works and repair shops; J. W. Thomas, general manager, Nashville.

Johnson City—Flour Mill.—Biddle & Ellsworth's flour mill was not destroyed by the recently reported fire, but only slightly damaged. The damage has been repaired and operations resumed.

Maury County—Phosphate Mines, Plant, etc.—S. & E. Strudwick, of Richmond, Va., and John Carpenter, of Columbia, Tenn., have purchased 700 acres of land in Maury county, and will develop phosphate mines thereon; a \$25,000 plant will be erected.

Soddy—Coke Ovens.—The New Soddy Coal Co. will construct forty coke ovens, giving it 191 in all; also will build retention bin of 400 tons capacity for washed coal.

Tullahoma—Tobacco Factory.—P. H. Elmore, of Eagleville, Tenn., will establish in Tullahoma a tobacco factory.

#### TEXAS.

Ablene—Publishing Company.—The Sentinel Publishing Co. has been incorporated, with capital stock of \$25,000, by H. L. Bentley, J. P. Daniel, E. B. McCoy and others.

Big Sandy—Cotton Gin.—B. F. Ingram will rebuild his burned cotton gin.

Corsicana—Cotton Mill.—It is reported that J. A. Smith, of Bessemer City, N. C., contemplates erecting a cotton mill in Corsicana.

Corsicana—Cottonseed-oil Mill.—It is reported that the National Oil Co. will build a cottonseed-oil mill.

Doucette—Lumber Mill.—The Tyler County Land & Lumber Co. has been incorporated, with capital stock of \$25,000, by J. I. Campbell, I. L. Campbell and Y. W. McNell, to operate mills, etc.

McKinney—Water Works.—The city will expend about \$25,000 on the construction of the water works reported last week. Bids will be opened soon; J. M. Pearson, mayor.

Waco—Electric Company.—The Mutual Electric Co. has been incorporated, with capital stock of \$10,000, to supply light and power, by W. S. Seley, S. W. Slayden, I. A. Goldstein and Toney Migel.

#### VIRGINIA.

Covington—Iron Furnaces, Mines, etc.—The Rich Patch Iron & Ore Co. (a corporation existing under West Virginia laws) has purchased for \$500,000 the mines and furnace property of the Rich Patch Iron Co. The new owner intends to extensively develop the property, open new mines, construct a new furnace, put the present furnace in blast, etc.

Fredericksburg—Electric-light Plant.—The city will obtain estimates on the construction of electric-lighting plant and then submit the question of issuing bonds to the voters. Address "The Mayor."

Lynchburg—Mercantile.—The Stover-Marshall Company has been incorporated, with capital stock of \$100,000, to conduct a mercantile business; John H. Stover, president; Y. P. Marshall, vice-president, and W. J. D. Bell, secretary-treasurer.

Lynchburg—Wagon Factory.—W. B. Taylor & Sons, of Stapleton, Va., have purchased the Hollins mill in Lynchburg, and will utilize same as a wagon factory. Three new buildings will also be constructed, and factory is to have monthly capacity of 150 wagons, employing twenty-five men.

Richmond—Land Improvement.—The Atlantic Land & Improvement Co. has been incorporated, with a capital stock of \$25,000, for general land improvements, etc., especially along the line of the Atlantic Coast Line; directors, H. Walters, of Baltimore, Md.; W. G. Elliott, of New Hanover, N. C.; J. R. Kenly, of Wilmington, N. C.; F. W. Scott, of Richmond, and Alex. Hamilton, of Petersburg; Alexander Hamilton, president; W. R. Jones, of Richmond, secretary-treasurer.

Roanoke—Hardware Factory.—H. E. McIlwaine, of Lynchburg, Va.; R. B. Fairfax, of Roanoke, Va., and others have purchased the Norwich Lock Works, and intend to put same in operation.

#### WEST VIRGINIA.

Charleston—Wagon-supplies Factory.—The Central Wagon Supply Co. (recently incorporated) is now equipping its factory for the manufacture of rims, hubs, spokes, axles, etc., for wagons.

Mount Clare—Coal Mines.—Incorporated: The West Fork Mining Co., for mining, transporting and selling coal and coke. Capital subscribed \$6000, with the privilege of increasing to \$50,000. The incorporators are O. Tibbets, F. H. Tibbets, E. J. Tibbets, S. E. Tibbets, of Savage, Mineral county, and W. M. Rollins, of New Haven, W. Va.

West Virginia—Copper Deposits.—It is reported that Clarence King, of New York, contemplates the development of copper deposits near the Virginia-West Virginia State line.

Wheeling—Axle Factory.—The Spears Axle Co. proposes making considerable extensions and improvements to its axle factory, work on the improvements to be instituted about next spring.

#### BURNED.

Alvarado, Texas.—S. B. Kemp's cotton gin.

Baltimore, Md.—The Carr-Lowery Glass Co.'s factory at Westport; loss \$90,000.

Barnesville, Ga.—J. W. & J. G. Bush's cotton gin, near Barnesville.

Fredericksburg, Va.—B. P. Sparrow's grist mill in Stafford county, near Fredericksburg.

Grovia, Ga.—J. Q. Ellis' cotton gin.

Norfolk, Va.—S. R. White & Co.'s wood-working shop damaged by fire.

Richmond, Ky.—Richmond Water & Light Co.'s steam boiler at gas works exploded.

St. Martinville, La.—Domingeaux & Babbin's cotton gin; loss \$2500.

Van Alstyne, Texas.—E. G. Beall's grain elevator; loss \$5000.

#### BUILDING NOTES.

Allendale, S. C.—Hotel, etc.—W. V. Gill is building a brick hotel and two stores.

Atlanta, Ga.—Church.—First and Central Presbyterian churches will build an edifice to cost from \$25,000 to \$40,000. Walker Inman can be addressed.

Baltimore, Md.—Stores.—C. F. Andrae & Co. have contract to erect addition to store of Henry Wessel & Sons, Charles and Hamburg streets; addition to be three stories high, 45x125 feet, entire front of plate glass, with iron framing, freight and passenger elevators, etc.

Baltimore, Md.—Railroad Sheds.—The Northern Central Railway Co. will construct new sheds at Bolton freight yards; building to be 33x300 feet, and when connected with

old building will give an area of 20,000 square feet under roof. The work, including alterations in driveway, tracks, etc., will cost \$17,000; Geo. C. Wilkins, general agent.

Belleair, Fla.—Hotel.—H. B. Plant, of New York city, will build a 40-room hotel at Belleair.

Biloxi, Miss.—Opera-house.—A \$30,000 opera-house will be built. W. K. M. Ducate can be addressed.

Birmingham, Ala.—Mercantile Building.—Loveman, Joseph & Loeb will erect a mercantile building, four stories high, 80x200 feet.

Chattanooga, Tenn.—Dwellings.—M. McDermott has awarded contract to Wm. Bott for erection of three brick dwellings.

Chattanooga, Tenn.—Dwellings, etc.—W. H. Douglas will erect a dwelling; E. G. Huber will erect a dwelling; Dr. Shafer will erect a brick store building 100 feet deep; R. W. Thomas & Bro. will build a warehouse of brick, 50x100 feet, for hay and grain storage.

Chattanooga, Tenn.—Warehouse.—The National Boat Oar Co. has had plans prepared for warehouse, and will build at once.

Chattanooga, Tenn.—School.—J. C. Breeding has prepared plans for \$4000 school building, to be erected in Highland Park.

Clarksville, Tenn.—Warehouse.—E. C. Morrow will erect a warehouse 180x108 feet in size.

Cordele, Ga.—Hotel.—A. Roobin will build a hotel 50x100 feet, two stories high, of brick, after plans by an Atlanta architect; building to have electric lights, private baths, water works, etc.

De Funiak Springs, Fla.—Stores.—Contract has been awarded for the erection of a one-story block of three stores, after plans by William Dreyer.

Fort Worth, Texas.—Office Building.—Sealed proposals will be received by the undersigned until November 23 for erection of a five-story stone and brick fireproof office building for Mrs. M. J. Hoxie at Fort Worth, Texas. Plans and specifications can be seen. Right reserved to reject any or all bids. Certified check for \$1000 to accompany all bids. Address M. R. Sanguinet.

Gulfport, Miss.—School.—The city will issue bonds, of which \$5000 will be used for erection of school building. Address "The Mayor."

Laurel, Md.—Hotel.—J. N. Herbert has given contract to L. A. Ellis for the erection of a hotel.

Miami, Fla.—Store.—Frank T. Budge will erect addition two stories high, 50x60 feet; J. W. Watson is reported as to build two-story brick store.

Montgomery, Ala.—Auditorium.—Tennent Lomax, J. T. May, E. J. Meyer, T. L. Jones, J. M. Falkner, Joseph M. Kennedy, David Fleming, B. J. Baldwin and Jacob Griel have incorporated the Auditorium Company, with a capital stock of \$15,000, to build an auditorium.

Newport News, Va.—A. Mr. O'Donnell, of Philadelphia, will build a three-story structure in Newport News; site has been purchased from Powell Bros. & King.

Newport News, Va.—Church.—First Presbyterian Church will erect a structure to cost \$20,000; Rev. E. T. Wellford, pastor.

New Orleans, La.—Hospital.—Plans by Dibell & Owen have been accepted for the proposed W. T. Richards hospital building. Address Dr. J. D. Bloom.

Port Deposit, Md.—Residence.—Capt. Jas. D. West will erect a residence.

Savannah, Ga.—Hospital Buildings.—W. F. May & Co., of Chattanooga, Tenn., were the lowest bidders for the erection of the hospital (army) to be erected in Savannah; bid was \$77,934.33.

Statesville, N. C.—Church.—Lazenby Bros. have contract to build a Roman Catholic chapel to cost \$1500.

Washington, D. C.—Residence.—W. McLane Goodrich, of Baltimore, Md., has completed plans and specifications for a residence for Wm. G. Turner, of Arlington Heights, Washington, D. C.

Washington, D. C.—Dwellings.—Five houses, two stories each, 16x53 feet, will be built after plans by A. B. Mullett & Co.; Oella Chapel will erect four houses, 16x33 feet, two stories; B. H. White will erect eight houses, 12x32 feet, two stories.

Incandescent Lamps for Isolated Plants.—A catalogue has been issued by the General Electric Co., of Schenectady, N. Y., of Edison incandescent lamps as made at the factory in Harrison, N. J. The catalogue comprises only the class of lamps used in isolated plants, and of voltages from 90 to 125. A larger catalogue, describing all classes of lamps manufactured by the company, is also available to those interested.



## RAILROAD CONSTRUCTION.

## Railways.

Chattanooga, Tenn.—A correspondent of the Manufacturers' Record writes that the Cherokee Mining Co., recently organized, has decided to construct nine miles of railroad to the ore fields which it controls.

Denmark, S. C.—Messrs. Abercrombie & Williams, of Montgomery, Ala., have secured the contract for constructing the branch of the Atlantic Coast Line between Denmark and Robbins. It will be thirty-five miles long, and is to be completed by May 1, 1899.

El Paso, Texas.—A report is current that the Southern Pacific Railroad Co. has become interested in a new line across the continent, which will extend from Portland, Ore., to El Paso. The line will include some new mileage and several roads already in operation. C. P. Huntington, 23 Broad street, New York, is president of the company.

Gadsden, Ala.—The Alabama Light & Power Co. has been formed, which will furnish motive power for the Gadsden & Attalla Union Railway. Arrangements are being made to rebuild this line for the use of trolley motors, and a contract has been given out for the cars. The length of the line is eleven miles. J. M. Elliot, Jr., is one of the officers of the railway company.

Hartford, Ky.—James F. Carson, secretary of the Hartford Commercial Club, writes the Manufacturers' Record that a survey has been made between Hartford and Fordsville, a distance of nineteen miles. The Commercial Club is corresponding with the Commercial Club of Louisville, with the idea of securing an extension of the Louisville, Henderson & St. Louis Railroad between Hartford and Fordsville.

Lexington, Va.—J. R. Williams & Co., of Richmond, inform the Manufacturers' Record that they have reached no decision as to the building of the proposed electric railroad near Lexington.

Little Rock, Ark.—W. B. Doddridge, of St. Louis, general manager of the Missouri Pacific Railroad Co., confirms the report in the Manufacturers' Record that this company has surveyed a line between Little Rock and Greenwood, Ark. The distance is about 130 miles. As yet no contracts have been let.

Little Rock, Ark.—John H. McCarthy, of Little Rock, and Benjamin H. Johnston, of St. Elmo, Ill., have secured the contract for building the Choctaw & Memphis Railroad from Little Rock to a connection with the Choctaw, Oklahoma & Gulf Railroad at Wister Junction, I. T. The distance is 164 miles, and the contract price is \$2,000,000. Henry Wood, at South McAlester, I. T., is general manager of the company.

Miami, Fla.—It is reported that a company may be formed to construct an electric line from Miami to Lemon City. Joseph A. McDonald is reported as interested.

Pensacola, Fla.—The Pensacola & Northwestern Railroad Co. has asked a franchise from the city authorities to lay tracks within the city limits. This is the line which is being promoted between Pensacola and Memphis. It is reported that Messrs. Sheehan, O'Brien and McBean, of New York, are general contractors of the line.

Philadelphia, Miss.—The railroad recently surveyed between Philadelphia and Louisville, Miss., it is stated, is to be called the Philadelphia, Louisville & Great Northern Railroad, and is to extend from Philadelphia to Fentress, Miss., where it will connect with the Canton, Aberdeen & Nashville Railroad, now being promoted by the Illinois Central, and a part of which is now being constructed. The road is to be by way of Louisville and through Winston county; the length of the line will be thirty-eight miles. It is reported that surveys for the line have been made by the Illinois Central Company, of which J. T. Harahan, at Chicago, is vice-president.

Savannah, Ga.—A report is current that the Georgia & Alabama Railroad Co. has practically decided to build an independent line into the city from Meldrim, Ga., its present terminus, as indicated in the Manufacturers' Record several weeks ago. The distance is seventeen miles. John S. Williams, at Richmond, is president of the company.

Shreveport, La.—Clarence Ellerbe, president of the Louisiana Central Construction Co., writes the Manufacturers' Record that the Shreveport & Red River Valley Railroad is now in operation from Shreveport to Coushatta, a distance of forty-five miles. Eighteen miles additional are now under construction and will be completed about December 1, while the company, as already stated, is about to let contracts for eleven

miles more, which, when completed, will make the entire length of the line seventy-four miles.

Simpson, W. Va.—A correspondent of the Manufacturers' Record writes that the Davis Coal & Coke Co., of Simpson, is constructing an inclined railroad about 1200 feet long; also a tramroad about 2000 feet long.

Sumter, S. C.—Right of way has been secured for the Sumter & Wateree Railroad, and it is announced that bids will be solicited for constructing this line in a few days. J. D. Blanding, at Sumter, is president of the company.

Terrell, Texas.—It is reported that the Crane Construction Co., of Kansas City, Mo., has been negotiating with President E. H. R. Green, of the Texas Midland, with the view of building an extension of its system from Ennis to Waco.

Texarkana, Ark.—It is stated that the Arkansas & Choctaw Railroad has been completed to a point twelve miles from the line between Arkansas and the Indian Territory. It is stated that it will be constructed to a connection between the Texas Midland Railroad at some point near Paris, Texas. W. H. Carson, of Texarkana, is one of the principal promoters of the enterprise and manager of the company.

Thomas, Ala.—Messrs. Dunn & Lallande, contractors for the railroad of the Pioneer Manufacturing Co., have begun the work of grading the road, which is about four miles long, and is to be completed by January 1, if not sooner.

Union Springs, Ala.—The Union Springs & Northern Railway Co. has been incorporated, with \$10,000 capital, to build a line from Union Springs to Fort Davis, in Macon county, a distance of about twenty miles.

Vicksburg, Miss.—A portion of the rails for the street railroad have arrived and work of construction has begun. E. C. Collins, whose temporary address is at Vicksburg, is superintendent of the construction company. It is expected to complete five miles of this line by January 1.

Washington, D. C.—J. D. Croissant, vice-president of the Washington & University Railway Co., informs the Manufacturers' Record that construction work will be commenced as soon as a bond issue is negotiated. Mr. Croissant's address is 821 North Carolina avenue.

## Street Railways.

Augusta, Ga.—The Augusta Railway Co. has begun work upon an extension about one and one-half miles in the suburbs. D. B. Dyer is president of the company.

Beaumont, Texas.—Mr. J. F. Keith, of the Beaumont Light & Refrigerating Co., writes the Manufacturers' Record that the proposed street railway will be about five and one-half miles long. The company desires to sell the franchise to parties who will utilize the power which it can furnish. It may construct the line itself, however.

Birmingham, Ala.—The Birmingham Construction Co. has determined, it is stated, to extend its line as far as East Lake, in the suburbs. G. H. Clark is general manager. The extension will be about three miles long.

## Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

Bicycle-repairing Tools.—See "Machine Tools."

Boller.—Variety Works Co., Dawson, Ga., will buy a return tubular boiler of 100 horsepower size, with 125 pounds guarantee working pressure, shell to be made of one-half-inch steel and seams double-riveted, full front, grate bars, etc. Address A. J. Baldwin, president.

Bollers.—Proposals will be received at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until November 22, to furnish at the Navy Yard, Boston, Mass., a battery of five boilers for the government rope manufactory. Blank proposals will be furnished upon application to the Navy Pay Office, Boston, Mass., or to

the Bureau; Edwin Stewart, paymaster-general United States Navy.

Briquette Plant.—Clarence Livingston, Whitwell, Tenn., wants to correspond with builders of plants for briquetting coal waste, culm, etc.

Broom Machine.—W. S. Lewis, Vandalla, N. C., wants to buy a broom machine.

Buttons.—Sealed proposals, in triplicate, will be received until November 22 for furnishing 10,000 gross uniform coat buttons, large, line, 6000 gross uniform coat buttons, small, line, 1500 gross bone suspender buttons, 1500 gross bone fly buttons; all to conform to standard samples at Schuylkill Arsenal. The bidders must state with what rapidity will furnish. Preference given to articles of domestic production or manufacture, conditions of quality and price (including in the price of foreign productions or manufactures the duty thereon) being equal. Blanks for proposals, etc., will be furnished on application. Envelopes containing proposals to be endorsed "Proposals for Buttons" and addressed to Col. John V. Furey, deputy quartermaster-general United States Army, 1428 Arch street, Philadelphia, Pa.

Cannery.—H. M. Stanley, Dublin, Ga., wants information on canning and estimates on cannery equipment.

Cannery.—J. C. Emmons, Allegany, N. Y., wants to correspond with makers of cannery equipment complete.

Crusher and Pulverizer.—E. E. Squier & Co., St. Louis, Mo., want a (Williams) crusher and pulverizer; give full particulars, size and price f. o. b.

Electric-light Plant.—Estimates on cost of electric-light plant for the town of Timmons-ville, S. C., are wanted. Address D. H. Traxler, chairman of committee.

Electric-light Plant.—Bids will be received until November 22 for the construction of electric-light plant at Fredericksburg, Va. After bids and estimates are received the subject will be submitted to the voters of the municipality. Plans and specifications can be seen at office of Engineering News Publishing Co., 220 Broadway, New York city. Address T. McCracken, John P. Knight and J. P. Rowe, light committee of city council, Fredericksburg, Va.

Excelsior Machinery.—C. M. McBride, Box 255, Savannah, Ga., wants addresses of manufacturers of excelsior machinery.

Fire Equipment.—Opelousas, La., wants to buy a hose cart and 500 feet of hose. Address Fritz Dietlein.

Flour Mill.—T. L. Walker, Roxbury, N. C., will want to buy machinery for flouring mill.

Flour-mill Machinery.—Biddle & Ellsworth, Johnson City, Tenn., will buy new sifter machine.

Glass Works.—Frank Sutter, Biloxi, Miss., wants machinery for glass works.

Hydrostatic Wheel Press.—Bidders are notified that an error in the second line of the specifications for one hydrostatic wheel press, Class 7, proposals for machinery and tools for the navy-yard, Norfolk, Va., to be opened November 15, 1898, calls for forty-two inches diameter, which should be eighty-four inches in diameter and eighty-four inches in length. Edwin Stewart, P. G., U. S. N., Navy Department, Washington, D. C.

Ice Factory.—Albert F. Rousseau, St. Martinville, La., wants bids on erection of 5 to 10-ton ice factory.

Machine Tools.—Jos. L. Pearson, Goldsboro, N. C., wants to buy set of tools for bicycle-repair shop, new or second-hand.

Railway Equipment.—Cherokee Mining Co., care of C. W. Howard, Times Building, Chattanooga, Tenn., will be in the market for locomotive engine of standard gauge, road-grading machine, railroad plow, scrapes, shovels and picks.

Railway Equipment.—Locomotive, second-hand, from six to ten tons, for logging; also about two or three miles of second-hand track and three to eight logging cars. Full particulars in first letter wanted. Address Box 393, Middleport, Ohio.

Road-grading Machine.—See "Railway Equipment."

Saw Mill.—W. M. Plummer, 412 Seventh street S. E., Washington, D. C., wants to buy a medium portable circular saw mill, second-hand.

Scales.—Johnston & Warne, Itom, N. C., want platform scales to weigh from six to eight tons; new or second-hand.

Water Works.—Proposals will be opened December 5 for the construction of water works; J. N. Hazlehurst, engineer. Address M. E. Gillette, chairman, West Tampa, Fla.

Water Works.—The city of McKinney, Texas, will open bids soon on the construction of water works; about \$25,000 is available; J. M. Pearson, mayor.

Water Works.—Estimates on cost of water works for the town of Timmons-ville, S. C., are wanted. Address D. H. Traxler, chairman of committee.

Water-works Equipment, etc.—R. C. Strother, West Union, S. C., wants prices on 6, 8 and 10-inch piping for mains; also on small piping and other fixtures and supplies for water works.

Wooden and Willow Ware.—Piedmont Broom Factory, Spartanburg, S. C., wants addresses of manufacturers of wooden and willow ware articles, paper, paper sacks, etc.

Wood-split-pulley Machinery.—See "Wood-working Machinery."

Woodworking Machinery.—Julius T. Dudley, Bennettsville, S. C., wants to buy machinery for making wood-split pulleys, new or second-hand.

## GENERAL INDUSTRIAL NEWS.

The Chester Pipe & Tube Co., of Chester, Pa., is enlarging its plant by the erection of an additional shop.

Fire recently damaged the works of the Standard Car Wheel Co. at Cleveland, Ohio, to the extent of \$40,000.

The Baldwin Locomotive Works will ship fourteen engines for the Siberian Railroad by vessel from Philadelphia.

A recent St. Louis incorporation is the Novelty Machine Manufacturing Co., organized with \$10,000 capital.

The tinplate mill of the Great Western Tinplate Co., at Joliet, Ill., has been destroyed by fire; loss \$120,000.

The Brandon Italian Marble Co., of Middlebury, Vt., has ordered an equipment of marble-sawing machinery for its mill.

The Bristol Brass & Clock Co., of Bristol, Conn., has decided to add a department for manufacturing wire and electric supplies.

Alonzo B. Allen and Charles N. Curran are interested in a company which proposes erecting a grain elevator at Detroit, Mich.

The Franklin Steel Casting Co., of Franklin, Pa., is installing new engines and boilers, also an electric plant, in its new powerhouse.

S. M. Hastings, J. P. Brown and others, of Chicago, have formed the Mills-Hastings Company for the purpose of manufacturing scales.

The Standard Boiler Manufacturing Co. has been organized at Goshen, Ind., with \$35,000 capital, to make special grades of boilers.

C. A. Gregory and G. K. Wadsworth are interested in the Gregory Electric Co., re-

cently formed in Chicago with \$100,000 capital.

Wm. M. Cottrell and Wm. Braze, of Chicago, are interested in the Chicago Steel Post Co., recently formed with \$1,000,000 capital.

Wm. Campbell, of Bennington Falls, Vt., has purchased all the machinery needed for the cotton mill which he is constructing at that place.

George T. Gaden, of San Francisco, is interested in a plan to establish a factory in Chicago for manufacturing steel cable and tramway machinery.

H. T. Crawford, of Brockton, Mass., is interested in the Crawford Shoemaking Co., organized to do business at Portland, Me., with \$100,000 capital.

The loss by fire at the plant of the Oswego Boiler Co., of Oswego, N. Y., is estimated to be about \$105,000. It is reported that the works will be rebuilt.

According to a dispatch from Germantown, Ind., G. J. Byman and others have formed a company to erect a factory for making agricultural machinery.

A Chicago dispatch is to the effect that Frazer & Chalmers have made arrangements to construct a new machine shop in that city, 105x320 feet in size.

The American Lamp & Brass Co., of Trenton, N. J., will probably increase the capacity of the factory at Ellwood, Pa., which was formerly utilized for such work.

Noyes W. Flisk, of Springfield, Mass., has purchased the plant of Messrs. Spaulding & Pepper at Chicopee, Mass. It is understood that a company will be formed to manufac-



ture rubber tires of all kinds at Springfield, Mass.

The Cincinnati Shaper Co., of Cincinnati, Ohio, has secured property which it will occupy in making special machinery and tools. The company is capitalized at \$50,000.

The Princeton Coal & Ore Mining Co. has been formed, with \$100,000 capital, by W. H. Hubbard, S. W. Norman and others. Its principal office will be at Princeton, Ind.

The Cortez Company has been formed for the purpose of manufacturing mineral water at Camden, N. J. Geo. F. Archer, of 330 North street, Camden, is one of the directors.

The Morgan Engineering Co., of Alliance, Ohio, has secured several extensive contracts for government work, and is enlarging its plant in order to increase its output.

A dispatch from Bridgewater, Pa., is to the effect that New York and Philadelphia capitalists may start a rolling mill in the building formerly occupied by the Hastings Steel Co.

The Superior Drill Co., of Springfield, Ohio, is preparing to operate its plant in the buildings formerly occupied by Amos Whiteley & Co., and expects to begin work about January 1.

A recent Indiana corporation is the Southern Strawboard Co., with \$50,000 capital. This company will operate at Rockport, Ind. S. A. Weaver and A. H. Kennedy are among the directors.

The J. H. Smith Company, recently formed at Muncie, Ind., will manufacture woodwork for carriages and other vehicles. Its capital is \$80,000. J. H. Smith and W. A. Hartley are directors.

Parties from Zanesville, Ohio, are negotiating with the owners of the Schneider Brewery at Marietta, Ohio, with the view of securing control of the plant and placing it in operation.

The Adirondack Machine Co., at Carthage, N. Y., has leased its plant to the E. S. Stiles Press Co., of Watertown, who will operate it. The plant contains a 10-inch boring mill, also a number of large planers.

The Appleton Manufacturing Co., of Lowell, Mass., has determined to install a new steam plant, consisting of a compound Corliss engine of 1000 horse-power and four boilers of 250 horse-power each.

A recent incorporation is the H. S. Crombie Rivet Co., with \$500,000 capital stock, which will manufacture general machinery and tools at Portland, Me. M. Davis, of Cambridge, Mass., is president.

The Taylor-Atkins Paper Co. has been organized at Hartford, Conn., with \$50,000 capital to manufacture paper, etc., at East Hartford. Charles F. Taylor and Frederick C. Atkins are among the directors.

Samuel G. Meeker, of Bridgeport, Conn., and John B. Ross, of Rahway, N. J., are directors of the Taylor Tire Co., organized with \$125,000 capital to manufacture rubber tires for vehicles at Newark, N. J.

At Montclair, N. J., the De Luce Screen Co. has been formed, with \$100,000 capital, to manufacture woodwork, such as doors, sash, etc. Edwin B. Goodell and Wm. W. Ames are members of the company.

Milton H. Smith, president of the Louisville & Nashville Railroad Co., of Louisville, Ky., has purchased the Gracey-Woodward Iron Furnace, of Clarksville, Tenn., and will probably place it in operation.

The Sawyer Manufacturing Co. has been formed, with \$50,000 capital, to manufacture gas fixtures, etc., at Camden, N. J. H. H. Sawyer, of Ridley Park, Pa., and G. L. Roland, of Philadelphia, are interested.

The Wilson-Childs Wagon Co., of Philadelphia, has been chartered, with \$10,000 capital stock, for the manufacture of vehicles. The directors include Robert A. Hance and M. E. Childs, all of Philadelphia, Pa.

The Reading Car Wheel Co., of Buffalo, N. Y., reports that the works which are located at Reading, Pa., are running to their full capacity, and the company regrets that the plant was not built for a greater capacity.

A syndicate at Hamilton, Ohio, is interested in the plan to combine the various school-furniture factories in the country into one organization, with \$6,000,000 capital. It is stated that thirty-eight factories will be included.

The Empire Rail Co. has been formed for the purpose of mining and manufacturing with \$1,000,000 capital stock by Harry W. Meen, Wm. Tillingham and others. The headquarters of the company are in Jersey City, N. J.

C. A. Frank, of Johnstown, Pa., is vice-president of the American Enameling Co., recently formed with \$50,000 capital. The company will erect a plant at Johnstown, and expects to manufacture a general line of enamel ware.

The Titusville Forge Co., of Titusville, Pa., has been obliged to add a large quantity of machinery to its plant recently. The apparatus includes several steam hammers, also three 30-ton steam cranes, as well as lathes and planers.

The American Engineering Co. has been formed, with \$100,000 capital stock, for the purpose of equipping electric-light plants. Samuel V. Ruman, of Philadelphia, and Jno. H. Tunstall, of Camden, N. J., are among its representatives.

The Lincoln Waterproof Cloth Co. has been formed for the purpose of making waterproof coverings and roofings. The plant will be located at Lincoln, N. J. W. H. Bache, of Bound Brook, N. J., is president of the company.

The Board of Trade of Taunton, Mass., it is announced, has been negotiating with a French company with the view of securing a silk mill. Representatives of the foreign corporation are now investigating the advantages of the city.

A Cincinnati dispatch is to the effect that several Richmond manufacturers have secured an option on property for the purpose of manufacturing cigarettes in that city. Among those interested are P. Whitlock and A. Allen, of Richmond.

The mint to be constructed at Philadelphia by the government will be built by Charles McCaul, who has signed a contract for that purpose. It is estimated that the cost of the structure will be fully \$400,000. Mr. McCaul's address is Philadelphia, Pa.

The Aetna-Standard Iron & Steel Co., of Bridgeport, Ohio, states that it is constructing a new Bessemer steel plant, which includes a continuous mill for rolling bars; also the equipment necessary for operating an additional blast furnace. The new works will be ready for operation early in the spring.

A dispatch from Moline, Ill., is to the effect that the Fuller Manufacturing Co., of Kansas City, is preparing to establish its plant at East Moline. The Union Malleable Iron Co., at present located at Moline, will remove to East Moline, leasing buildings for the purpose.

A recent incorporation is the Bevel Gear Wheel Co., which will have a plant for manufacturing bicycles at Newark, N. J. It is capitalized at \$1,000,000. Among those interested are Charles M. Richards and M. H. Miller. The company's offices are at 788 Broad street.

Mr. John W. Taylor, of York, Pa., has perfected a new turbine wheel, which is termed the Taylor cylinder gate wheel. The York Manufacturing Co. has arranged to manufacture the invention, and it is understood it will be soon placed on the market in competition with other water-power devices.

The Edgar Thomson Steel Works is being improved by the addition of new engines and a new blooming mill. The additional apparatus will increase its output fully one-third, and it is stated that the blooming mill will be one of the most powerful in the country. The works form a branch of the Carnegie Steel Co. at Pittsburgh, and is expected will be ready to resume operations by December 1, if not sooner.

The Bullock Electric Manufacturing Co., of Cincinnati, Ohio, expects to begin operations in its new plant at Norwood about December 1. The company has built a power-house 175x75 feet in dimensions, which will generate 500 horse-power, and contain a cross-compound engine directly attached to generators. Electric-power is utilized entirely, also for lighting. The machine shop is 300x100 feet, and is also operated by electricity. The pattern shop and brass foundry is 100x75 feet, while another new building contains the general offices of the company. All of the necessary machinery has been purchased.

The Hamilton-Brown Shoe Co., of St. Louis, Mo., has determined to double the capacity of its plant on account of the increased business demands. It will construct a building for manufacturing shoe material, which it has hitherto purchased. The building will contain over 100,000 square feet of space, and with it the company will be enabled to double its present force of hands. It is now giving work to over 1200 employees, and with the proposed enlargement will have one of the largest factories in the United States. Its success is an indication of the opportunities for shoe manufacturing in this portion of the country. The company has been in operation about fifteen years, and states that the demand for Western-made shoes is continually increasing.

The Harrisburg Foundry & Machine Co., of Harrisburg, Pa., is about to let contracts for additions to its works, which will greatly increase the facilities for its business. The

plant will occupy a tract of five acres, recently purchased, and will include a building 260x140 feet in dimensions and a two-story office building. The main building will contain a storeroom and a complete outfit of machinery for manufacturing the Harris standard engine. The same type of engine will furnish power, steam to be supplied by two 200-horse-power boilers. Other sections of the main building will include a foundry 90x100 feet and a machine shop 50x122 feet. Several electric cranes will be utilized for handling heavy weights. It is calculated that the plant will cost about \$200,000. Wm. R. Fleming is general manager.

## TRADE NOTES.

The General Electric Co. has established a sales office in the Templeton Building, Salt Lake City, Utah, in charge of Mr. B. E. Chubbuck.

Ice Machine Sale.—The machinery for the new 18-ton ice factory at Belton, Texas, will be furnished by the Fred W. Wolf Co., of Chicago; plant will have also a cooling capacity of four rooms 18x20 feet each.

Large Contract for Wire.—The contract has been awarded to the Dow Wire Works Co., of Louisville, Ky., to furnish heavy wire window guards and elevator enclosures in the insane asylum at San Antonio, Texas.

To Equip the First Woolen Mill in China.—American enterprise and mechanical ingenuity will furnish the entire equipment of machinery for the first woolen mill to be established in far-away China. The mill is to be located at Tientsin, and will manufacture flannels and blankets. The M. A. Furbush & Son Machine Co., of Philadelphia, Pa., will furnish the machinery, which will be constructed and ready for shipment by January, 1899.

Improvement on Bending Machine.—One of the employees of the F. C. Austin Manufacturing Co., at Harvey, Ill., has invented an attachment for bending machines or bulldozers that is considered an improvement which may revolutionize the use of all this class of machines. It is an adjustable form or die, and by its use thirteen sets of separate forms, for bending different shapes, weigh only 166 pounds, while if applied to the machine in the old way their weight would be many thousand pounds.

Plumbers' Brass Work.—The demand for plumbers' brass work has increased greatly of late, and the producers of this class of goods are busily engaged in filling their orders. One of the most prominent manufacturers of every description of plumbers' brass work is the Wm. Powell Company, of Cincinnati, its neat designs and thorough workmanship being known widely. This company says that its business is on a tremendous boom, order after order being received for large bills of goods, and the entire plant is working hard to fill them.

Extensive Plate and Sheet-Metal Plant.—The W. J. Clark Co. has completed and now has in operation in its extensive plate and sheet-metal-working plant at Salem, Ohio, a new and greatly-improved hydraulic bending and forming machine for making boxes and other similar work of plate metal of any gauge from one-thirty-second to one-quarter inch thickness. The machine makes bends of circular or angular shape, forms a bead or puts wire or rod of any size in the edge of plates and does a variety of work not heretofore done by a single machine in as heavy plate.

Jet Fire Pumps.—Orders from the Southern Railway Co. for four of Vanduzen's locomotive and railroad jet fire pumps (Havens' jet) for use on four locomotives, have been received by the E. W. Vanduzen Co., of Cincinnati. Other companies using the jet pumps on locomotives, especially on yard and switch engines, are the New York, Lake Erie & Western Railroad, at various points, fifty pumps; Pennsylvania Railway Co., at various points, three pumps; Baldwin Locomotive Works, Philadelphia, Pa., fifteen pumps; Hinkley Locomotive Works, Boston, Mass., ten pumps; Rogers Locomotive Works, Paterson, N. J., five pumps; Brooks Locomotive Works, Dunkirk, N. Y., nine pumps.

New Water-wheel.—A new kind of water-wheel is said to have been invented, by which grist mills and other machinery requiring but a small amount of power can be successfully driven when the water supply is too small to move any other kind of water-wheel known. The new wheel is the invention of O. J. Noddard, of Mannville, N. Y., who has one of his own construction in use, which, though rudely made and working to

disadvantage, enables him to run his mill and a small planing mill when other mills on the same stream having turbine and other wheels cannot run. The W. J. Clark Co., of Salem, Ohio, is preparing to make the new wheels in connection with its other products.

Painter's Brush Cabinet.—There is now being placed on the market a painter's brush cabinet, which has features of merit that attract the attention. This cabinet preserves brushes and keeps them from curling, twisting, shedding, rotting or freezing, thereby proving a source of saving and a most convenient part of the painter's equipment. The cabinet is made in a neat style, and when closed makes a presentable table, and its weight is less than fifty pounds. The non-evaporating feature used can also be attached to safes, sideboards, refrigerators, refrigerator cars, etc., for preserving perishable articles and thus saving the expense of ice. In cars not only would the expense of ice be saved, but also the space required for the ice's storage. The inventor and maker of this device is Mr. J. H. Francis, of Nettleton, Miss.

Sectional Grate Bar.—Orders are coming very readily to the Earl & Wilson Co., of Gastonia, N. C., manufacturer of an improved sectional grate bar, quite a number having been received recently from North and South Carolina. Among recent letters of commendation which the company has received appeared the following statements: "Your bar is giving perfect satisfaction." "Your bar enables us to do more work with three cords of wood than before using four." Then again Mr. A. B. Stevens, president of the Merrill-Stevens Engineering Co., of Jacksonville, Fla., writes: "I have examined the model of your patent grate, and I believe that it will prove an economical and efficient grate and be especially cheap in the matter of removal of used-up parts, as they are small and easily and cheaply replaced. It also commends itself for the ease it can be changed for wood or coal burning."

Employees' Picnic.—The picnic of the Mutual Benefit Association of the employees of the H. Mueller Manufacturing Co., of Decatur, Ill., held last month, was voted a great success by those present. Employees to the number of 125, with their families and friends, bringing the total up to 350 persons, had a most enjoyable day, enlivening the occasion with the usual merry-making incident to such outings. Music, refreshments, games, athletic exercises and other enjoyments were partaken of by those present. This was the first outing of the association, and, owing to its success, it was determined that one be held annually. The Mueller Company manufactures water-pipe tappers, gas-pipe tappers, water-pressure regulators, cocks of all kinds, etc., for plumbers and water works, and deals in a general line of water-works and plumbers' supplies. Business with the enterprise at the present time is very good, and every endeavor is being made to extend the trade.

Should Have Used a Towing Machine.—A dispatch from New London, Conn., says that a tug which was towing four barges about four miles west from Cornfield light was caught by a heavy gale. Her hawser broke, and soon afterward one barge sprung a leak and collided with the second barge, and this ultimately resulted in the sinking of the four barges. Two men on one of the barges were lost, but the crew of the tug, by means of the heaving line, rescued seven men, two women and a baby from the other barges. This unfortunate accident was undoubtedly caused largely by the old-time towing method that was being utilized. Admiral Sampson mentions in his report of the operations of his fleet that the speed of the fleet was governed by that of the slowest monitor, and that to overcome this they were obliged to tow the monitors, but were greatly bothered by parting of the hawsers. If the Shaw & Spiegle towing machine had been used in both of the above instances, trouble would have been avoided. For information regarding the machine referred to write the American Ship Windlass Co., of Providence, R. I.; Frank S. Manton, agent.

Recent Sales of Cochrane Separators.—These recent sales were made: In Philadelphia, seven-inch horizontal; Toluca, Mexico, six-inch horizontal; Boston, Mass., 10-inch horizontal; Gloversville, N. Y., one three-inch and one four-inch horizontal; Boston, Mass., eight-inch horizontal; Chicago, five-inch vertical; U. S. Navy, four-inch horizontal; Whiting, Ind., three six-inch all-amon; Philadelphia, Pa., four-inch horizontal; Boston & Maine Railroad, two six-inch horizontal; Massachusetts Institute of Technology, six-inch horizontal; North Attleboro, Mass., one four-inch and one five-inch hori-



sonal; Philadelphia, Pa., seven-inch horizontal; Vincennes, Ind., two six-inch vertical; Boston, Mass., five-inch horizontal; Beaver, Pa., one 12-inch and one five-inch vertical; Boston, Mass., four-inch vertical, and one three-inch vertical; New Castle, Pa., 12-inch horizontal; St. Louis, Mo., 12-inch horizontal; East St. Louis, Ill., seven-inch horizontal; Kenosha, Wis., six-inch vertical; Philadelphia, Pa., four-and-a-half-inch and 10-inch horizontal; Mystic, Conn., five-inch vertical; Hamilton, Ohio, four-inch vertical; Chicago, Ill., six-inch vertical; Ellsworth, Kans., six-inch horizontal; New York, five-inch horizontal oil-ammonia; Hoopston, Ill., six-inch horizontal; Ashland, Ky., four-inch horizontal. The maker of the Cochrane separator, as is well known, is the Harrison Safety Boiler Works, of Philadelphia.

**General Mill Furnishers.**—The experience of a number of years has prompted the managers of the Keystone Mill Furnishing Co., of 217 Race street, Philadelphia, to offer its services to the milling public with a feeling that its abilities will be called upon freely by those purchasing mill supplies or erecting new mills for grinding grain, paints, oils, roots, herbs, etc., and, in fact, plants for any kind of milling. The Keystone Company has for its proprietor Mr. B. F. Starr, of Baltimore (for many years the head of B. F. Starr & Co., of Baltimore, general mill furnishers), and the manager is Mr. John C. Field, who was connected for some years with the Baltimore house referred to. The company is prepared to furnish French burr stones for grinding grain into feed and meal, paint in oil, phosphate, cement rock, fertilizers, roots, herbs and all hard substances, Swiss bolting cloth, roller mills, etc. Chilled rolls for milling can be furnished, and the plant has the necessary special machinery to regrind and recorruptate rolls, and with its full line of cutting tools can supply any style of corrugation desired. Parties or companies about to remodel established mills or erect new ones are invited to obtain estimates for the work contemplated; in such cases the services of competent milling experts are employed. Esopus stones for making a superior quality of soft, flat, fluffy table meal, especially adapted to the Southern trade, and Scotch stones for rice milling are promptly furnished.

## TRADE LITERATURE.

**Bulletin "F."**—The Sturtevant motors and generators for direct current are given attention in Bulletin "F," issued by the B. F. Sturtevant Co., of Boston, Mass.

**Flexible Chairs.**—A catalogue of the flexible chairs, settees and benches of the Smith Flexible Chair Manufacturing Co., of Washington, D. C. (915 G street), has been issued. The line of goods shown presents itself as adapted for many purposes.

**Calendar for '99.**—A neat calendar comes from the Belfast Ropework Co., of Belfast, Ireland. The calendar is illuminated in red and gold and has a card for each month of the coming year. The Belfast Ropework Co. manufactures ropes, cords, twines and lines.

**History of Portland Cement Industry.**—The current number of the Journal of the Franklin Institute of Philadelphia contains a paper on the history of the Portland cement industry in the United States. The paper is a reproduction of the article read before the Franklin Institute last spring by Mr. Robert W. Lesley, who is vice-president of the American Cement Co., of Philadelphia.

**Wire-cable Ferries.**—An advance copy of the pamphlet entitled, "Construction and Operation of Wire-cable Ferries," has been received at this office. Wire-cable ferries furnish a cheap means of transport across streams in cases where travel is not sufficient to justify the building of a bridge. The equipments shown in the pamphlet are complete, and of interest to anyone contemplating the establishment of such a system. For pamphlet address the Trenton Iron Co., of Trenton, N. J.

**1899 Columbia Calendar.**—The fourteenth annual edition of the Columbia desk-pad calendar, issued by the Pope Manufacturing Co., of Hartford, Conn., is being distributed. This calendar occupies a unique place among advertising devices. It may be said to be largely the product of the Pope Company's own customers, whose contributions in the shape of fitting testimonials to the merits of Columbia bicycles or clever bits of verse about bicycling in general appear at the tops of the various pages over the names of the contributors. The pages for Sundays, the first day for each month and holidays present appropriate selections from

well-known authors. For a copy of calendar send five two-cent stamps.

**A Large Industrial Plant.**—The friends and patrons of the E. W. Bliss Company will be much interested in the book just issued by that corporation. A number of photographic views of the extensive plant in Brooklyn, N. Y., are presented, together with representations of a number of the machines built by the company. This enterprise was first established in 1866, and from that date has steadily grown in extent and in the popularity of its product, which comprises a most complete line of the sheet-metal-working machines of the latest designs. For many years the company has claimed to be the leading manufacturer of its line in the United States, and its policy in the future will be to spare neither effort nor expense in maintaining its wonted supremacy.

**Hoisting Appliances.**—It is probably no exaggeration to say that during the last past ten years the development and subsequent introduction of electrical machinery in connection with almost every line of manufacturing industry has done more to reduce the cost of production than any other agency. In no line has this been more conspicuous than in the operation of machinery for the handling of the product of our large mills, factories and railroad shops. Prominent among such handling machinery stands the three-motor overhead travelling crane built by the Case Manufacturing Co., of Columbus, Ohio. This company has issued an illustrated pamphlet of its hoisting appliances, containing concise descriptions and accurate illustrations that will convey to the reader the efficiency and many marks of merit which they possess. The Case Company's cranes (electrical, steam, belt and hand-power) are well known in the shops of this country.

**Mechanical Draught.**—The chimney stood for many years as practically the only available means of producing draught, which, thus produced, has commonly been called natural draught. If the chimney met satisfactorily all the requirements of modern boiler practice one would scarcely have expected to see a substitute produced; but it has not entirely met these requirements, and accordingly there have appeared systems for mechanical draught that have become well known to the industrial world and found considerable use. Primarily forced draught was introduced as an adjunct to the chimney, but in the course of practice and experience it has been seen that artificial draught could displace the chimney entirely, and it has accordingly to a considerable extent done so. The subject of mechanical draught for steam boilers was fully treated of by Mr. Walter B. Snow (of the engineering staff of the B. F. Sturtevant Co.) in a lecture delivered at Sibley College, Cornell University, last April. This lecture has been reproduced in a pamphlet issued by the Sturtevant Company, and it is understood that copies of it may be had on application to the office in Boston, Mass.

## Rope Transmission.

In almost all transmissions shafting is indispensable, and motion to it is imparted by gearing, leather or other belting, wire and fibrous ropes, and, finally, electricity. It is with fibrous ropes chiefly that concern is had in the present article, although each of the other means of transmitting power has its peculiar features of merit. Wire rope, on account of its great strength, is peculiarly fitted for the transmission of large powers to great distances, as, for instance, in heavy hoisting and in cable and inclined railways. In its proper sphere it is said to be supreme; elsewhere its disadvantages, such as its great weight, the large-size pulleys required, the rapid wear and the great loss of power from friction and slip, make it undesirable. Rope transmission (meaning fibrous ropes principally) possess many advantages, some singularly and others in common with other methods of power transmission, some of which, as claimed by its advocates, are given herewith. The distance to which power may be transmitted in mill practice is practically unlimited; the amount of power which may be transmitted is also practically unlimited. The lightness of the rope, its elasticity and slackness between pulleys takes up inequalities in power and load, thus producing an evenness in running which exists in no other system of power transmission. Rope drives are noiseless, a fact due to the flexibility and lubrication of the rope and to the air passage in the grooves between it and the pulleys; no electrical disturbance is produced; practical security is attained against shut-downs by failure of the ropes, for, before failing, ropes stretch excessively, but gradually, thus giving notice that repairs are to be made at some convenient time.

Precise alignment is not essential, and by properly-placed idle pulleys power may be transmitted without difficulty in any direction whatever. Many so-called disadvantages in rope-driving are no more serious than are similar ones peculiar to belt transmission, and the difficulty of securing to the ropes the correct speed and tension, the proper splicing of them, the design and workmanship of the pulleys (especially the surface finish and form of the grooves), are important details which a little experience with the system renders comparatively easy of attainment. Rope for transmission purposes is manufactured of different materials, such as rawhide, flax, hemp, cotton, manilla, sisal and coir. Ropes made from each material have their especial qualities, but those made from manilla have come to be received with the most general satisfactory results, and hence that material is generally used. Prominent among the makers of transmission rope and installers of systems of such in mills is the American Manufacturing Co., of 67 Wall street, New York city, which has just issued a little "Blue Book" on rope transmission and transmission rope, which will be found of much interest to operators of industrial plants.

## A New Canmaking Machine.

One of the most complete canmaking machines, or possibly the most complete canmaking machine, ever introduced to the notice of the canmaking industry of this country is now on exhibition in Baltimore.

This new machine is a distinct innovation in the manufacture of tin cans for the canning of fruits and vegetables, and those who see it at once recognize its exceptional merits.

Hitherto there have been three or more operations and some manipulation by hand necessary in the production of the completed tin can ready for the use of the canner, but in the new machine to which attention is called but one operation is necessary.

The machine is about twenty-five feet long, not occupying a space over three feet wide, and the sheet tin in square shape is fed into it; then it is conducted along through a shaping process which gives the rounded shape, forming a lock seam, which is soldered automatically, and the tops, carried by a revolving header to their place, are pressed on the rounded can, the completed can ready for use then issuing from the machine. Every operation of the machine on the sheet of tin is fully visible to the operator or spectator from beginning to end, and the manner of feeding is so simple that a child can attend to it.

The machine on exhibition is for the production of one-pound round cans only, but square or round cans of any size can be as readily produced by different-size machines built for the separate purposes. The machine is entirely automatic in its operation; it is the invention of Mr. R. D. Hume (the pioneer salmon packer of the Pacific coast), of San Francisco, and a number of the design have been in use in the Hume plants for several years past and have demonstrated their continued effectiveness and practical worth.

No attempt has been made as yet to place the machines on the market, and, in fact, only two of them have ever been erected outside of California, one being that in this city now and one for making square cans, which was shipped to London for exhibition there. But it is expected that in the near future arrangements will be consummated for the construction of the machines, so that they may be offered to the canmaking industry.

Mr. W. H. Murray, of San Francisco (where he established and for many years edited the Journal of Commerce), is representing Mr. Hume at the exhibition of the machine here, and he extends an invitation to anyone interested to visit the factory of Messrs. Daugherty & Mann, 1422 Philpot street, where it can be seen in operation throughout the day.

## PHOSPHATES.

### Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., November 17.

In the phosphate market there is only a moderate trade demand, and business is showing very little expansion. Brokers report the market firm for all descriptions of rock, and manufacturers are only buying in small lots to satisfy immediate necessities. The work of development at points of production is being pursued with considerable vigor and enterprise, and advices from nearly all points indicate a healthy state of affairs. The demand for South Carolina phosphate rock from domestic sources is fair, with prices about steady. Florida rock is moving freely, a number of charters having just been closed for loading rock at Tampa, Fernandina and Savannah. The market is firm for Florida rock and there is a good foreign demand. In Tennessee there is a good demand in the Mt. Pleasant district, and miners are working vigorously, increasing the output under heavy sales of domestic and foreign phosphate rock. Prices continue firm and hardening. There was a better demand for phosphate and fertilizer tonnage during the week in New York, and vessels are offered more freely. Rates are generally steady. The following charters were reported: A British steamer from Tampa or Fernandina to Genoa or Venice with phosphate rock at 20s., January-February; Italian ship Drumpark, 1470 tons, from Tampa to Sydney or Melbourne with phosphate rock, lump sum; schooner Alice Archer, 448 tons, from Tampa to Cartaret, N. J., at \$1.85; schooner Augustus Welt, 1112 tons, from Port Tampa to Baltimore with phosphate rock at \$1.80, to Cartaret, N. J., \$1.90; schooner Harry Prescott from Elizabethport to Savannah with fertilizer on private terms; schooner James Baird, 372 tons, New York with phosphate, thence Lewes to Charleston with fertilizer on private terms.

### Fertilizer Ingredients.

The general market for ammoniates is quiet, with only a moderate demand for most descriptions. There is a firm tone in the West, and Western packers have made contracts for twelve-month deliveries, which will supply consumers' wants. Tankage contracts in Chicago have been sold on a basis of \$14 to \$14.25 f. o. b. There is very little demand from Southern sources. Eastern buyers are purchasing, and from this source a fair demand is expected later on. Sulphate of ammonia is firm, and for both foreign and domestic prices are slightly higher. Foreign is quoted \$2.55 to \$2.60 c. i. f. Baltimore, and New York domestic gas, \$2.60 c. i. f. Baltimore. Nitrate of soda is quiet on the basis of former prices.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 60 @	—
Nitrate of soda	1 65 @	1 70
Blood	1 85 @	—
Hoof meal	1 70 @	—
Azotine (beef)	1 85 @	—
Azotine (pork)	1 85 @	—
Tankage (concentrated)	1 65 @	—
Tankage (9 and 20)	1 65 @	17 50
Tankage (7 and 30)	17 00 @	17 50
Fish (dry)	20 00 @	—
Fish (acid)	12 00 @	—

### Phosphate and Fertilizer Notes.

The following shipments of phosphate rock were reported last week from the port of Charleston, S. C.: Schooner Edward G. Hight for Baltimore with 800 tons; schooner Emma C. Knowles for Elizabeth, N. J., with 948 tons, and schooner John G. Schmidt with 600 tons for Philadelphia. The total coastwise shipments of phosphate rock from Charleston from September 1 to Novem-



ber 11 amounted to 23,610 tons, against 15,493 tons for the corresponding period last year.

The fifteenth annual convention of the Association of Official Agricultural Chemists was held last week in Washington, D. C., with President A. L. Winton in the chair. Secretary H. W. Wiley, of the Department of Agriculture, presented a report on the results of experiments at the various government stations on the value of various kinds of fertilizers. Among the fertilizers tested were dried blood, cottonseed meal, tankage, dried fish, meat scraps, castor pomace, steamed leather, bone and hoof meal. Tables accompanying the reports showed the results of the analyses. At the conclusion Secretary Wiley recommended that the use of the system of fertilizing by the permanganate method be continued during the coming year, and another report will be submitted at the next annual convention. A discussion, in which Drs. C. H. Jones, H. J. Wheeler and J. A. Myers participated, followed the reading of the report. About fifty scientists connected with the government experimental stations and various agricultural colleges were in attendance.

#### Reported Armor-Plate Plant.

The recent visit of Mr. C. P. Huntington to Newport News, Va., with several foreign capitalists, it is reported, has resulted in the determination of the latter to become interested at this point. It is stated that among those who visited the shipyards were Mr. A. MacKay, John Crossley and James Dunn. The plans, it is reported, include the construction of a plant for making armor plate, also heavy ordnance, and if carried out would result in the formation of a company with \$15,000,000 capital. The truth of the reports, however, are denied by Mr. Huntington.

A dispatch from Chattanooga says the annual convention of the Tennessee River Improvement Association will be held here on November 23. A memorial will be prepared and presented to Congress asking for an appropriation of \$2,000,000 to improve the Tennessee river from Chattanooga to its mouth. It is estimated that for this sum the river can be made navigable the year round. The freight carried on the river amounts to \$15,000,000 annually, and with the proposed improvements it is estimated that this sum will be doubled.

A piece of coal recently mined near Clarksburg, W. Va., it is claimed, is the largest ever taken from any coal deposit in this country. It is a shaft of pure coal, showing no silicious matter, and is nine feet high and slightly more than three feet square, weighing about 10,000 pounds.

William Cameron & Co.'s saw-mill plant at Rockland, Tyler county, Texas, was destroyed by fire on the 4th inst. The loss is \$50,000, partially insured. The lumber-yard was saved.

Electrical Turntable.—The economics of railway management do not end with the adoption of the high-pressure compound locomotive or the hundred other contrivances which have been born of necessity, but go on and on, always finding a way to eliminate here or there an unnecessary expenditure. One of the latest economic developments is an adaptation of the electric motor to turntables. The device is simple, and for a description of it those interested are referred to the pamphlet issued by the Westinghouse Electric & Manufacturing Co., of Pittsburgh, Pa., which makes the device in question. The Westinghouse method of applying electricity to the operation of turntables should be especially interesting to railway managers, inasmuch as it requires no change in the turntable proper other than attaching the draw-bar lug to the turntable girder.

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

#### New Corporations.

It is reported that arrangements are being made to open a new bank at Ocilla, Ga.

It is expected that the Farmers' Bank, recently organized at Georgetown, Ky., will begin business about January 1.

The Southern Mutual Fire Insurance Co., of West Point, Miss., has been chartered by R. M. Trotter, J. A. Oliver and others.

The Harrisburg State Bank has been formed at Harrisburg, Ark., with \$25,000 capital. Among those interested are J. C. Mitchell and J. W. Gant.

The Farmers' Insurance Co., recently formed at Jonesboro, Tenn., has elected the following officers: President, R. M. C. Deakins, of Morning Star, Tenn.; vice-president, C. F. Keener, of Jonesboro; secretary-treasurer, W. R. Reeves, of Vineland, Tenn.

A charter has been granted to Alexander Hamilton, of Petersburg; W. R. Jones, of Richmond; H. Walter, of Baltimore, and others, to buy and sell real estate at Richmond. It will have a minimum capital of \$25,000. Several of the incorporators are officers in the Atlantic Coast Line system.

The Philanthropy Building and Loan Association has been incorporated at Baltimore by Benjamin Frank, Moses Moses, Kaufman Katz, Ralph Sachs, Solomon Hamburger, Eli Ottenheimer, Joseph L. Hess, Sol J. Schloss, Michael B. Lehman, Moses Saphra, Moses Katz and Jacob M. Moses. It has an authorized capital of \$1,000,000.

#### New Securities.

The New Orleans Brewing Association is considering the question of issuing \$250,000 in preferred stock.

The town of Monroe, La., has voted in favor of issuing \$155,000 in bonds for improvements. Address the mayor.

The town council of Gulfport, Miss., has decided to issue \$15,000 worth of 6 per cent. bonds for improvements.

Boyle county, Kentucky, has decided by vote to issue \$40,000 worth of road bonds. The Fiscal Court may be addressed at Danville, Ky.

The city of Independence, Mo., has decided in favor of issuing \$75,000 worth of 4 per cent. bonds. The mayor will give further information.

The city of Memphis, Tenn., may issue \$250,000 in bonds for park purposes. Mayor Williams is taking an active interest in the matter.

Bath county, Kentucky, has decided in favor of the issue of \$38,000 for road bonds. The Fiscal Court may be addressed at Owingsville, Ky.

The town of Greensboro, Miss., will receive bids on December 6 for \$15,000 worth of 6 per cent. bonds for improvements. T. P. Gary is clerk.

The people of Grant county, Kentucky, have voted in favor of issuing road bonds. Williamstown is the county-seat, where the county clerk may be addressed.

The residents of Brambleton Ward, in Norfolk, Va., have voted in favor of issuing \$150,000 in sewerage bonds proposed some time ago. Address the mayor.

The people of Madison county, Kentucky, have voted in favor of the proposed issue of \$70,000 worth of road bonds. The board of commissioners may be addressed.

The people of Warren county, Kentucky, have voted in favor of issuing \$140,000 worth of 4 per cent. bonds. The Fiscal Court may be addressed at Bowling Green, Ky.

The people of Gloucester county, Virginia, have voted in favor of issuing \$50,000 worth of railroad bonds as proposed. The board of commissioners may be addressed at Gloucester Courthouse.

It is reported that the city authorities of Gallatin, Tenn., have decided to again offer the issue of \$35,000 worth of 4 per cent. bonds for water-works purposes. The town clerk will give further information.

It is announced that the State of Maryland has succeeded in refunding what is known as the consolidated State loan. New York savings banks secured \$2,330,000 worth of the bonds, which bear 3 per cent. interest.

Arrangements are being made to refund the debt of Frostburg, Md., by issuing 4 per cent. bonds in place of those outstanding, which bear interest at 5, 6 and 4½ per cent. R. Annan, of Frostburg, is in charge of the undertaking.

W. A. Blair, secretary of the Journal of Commerce, of Winston, N. C., may be addressed concerning bonds which will be issued by several companies which intend constructing buildings in that city. The buildings include a hotel, theater and an office building.

Mr. Lee S. Baldwin, county clerk, writing from Winchester, Ky., to the Manufacturers' Record, says: "On December 1 this county will sell publicly at this place \$50,000 worth of its bonds to run twenty-five years and bearing 4 per cent., payable semi-annually." It will be interesting to note the results of selling these county bonds at public auction.

#### Capital Wanted.

Dixie Tile & Pottery Co. (W. H. Cooper, lessee), Oxford, Ala., with an authorized capital of \$15,000—\$13,500 paid up and carefully and intelligently invested in the clay deposits of twenty-five acres and Raymond outfit for making plastic brick and four-mold Boyd dry-press, steam dry-room, pottery equipment and kilns, etc.—desires to increase its capital stock to \$50,000, par value, or to sell \$10,000 first mortgage 10-year 6 per cent. bonds, to enable us to increase output of plant to try and meet the demands made upon us for buff building brick and fire-brick. Our clays are very tractable, all fireproof clays and are susceptible of being worked and burned into all the clay products, with a wide field for sales and practically without competition. We enjoy a healthy profit margin above cost on our products. The experimental stage is over with us. We know our clays, and have made, in addition to the prettiest cream buff and gray building brick and fire-brick and pottery, sewer pipe, terra-cotta, tiling, fire-flue linings, etc., with an increasing demand for all. Soliciting correspondence, W. H. COOPER.

#### Dividends and Interest.

The Consolidated Gas Co. of Baltimore has declared a semi-annual dividend of 2 per cent.

The First National Bank of Baltimore has declared a semi-annual dividend of 2½ per cent.

The Old Town Fire Insurance Co., of Baltimore, has declared a semi-annual dividend of 3 per cent.

The Louisville Manufacturing Co., of Louisville, Ky., has declared a quarterly dividend of 1¼ per cent.

The Nolachucky Telephone Co., of Jonesboro, Tenn., has declared a dividend of 5 per cent. for the past year.

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The Portsmouth Waterfront Land Co. has declared a dividend of \$25 per share. With this each shareholder of the company has received \$410 in dividends since the organization of the company three years ago.	
Financial Notes.	
The Citizens' National Bank, of Danville, Ky., has decided to reduce its capital from \$150,000 to \$100,000.	
The Bank of Murphy, Tenn., has elected R. H. Hyatt, president; W. T. Corder, vice-president, and W. C. Kenyon, cashier.	
During the week ended November 13 the output in the Joplin, Mo., district was 9,800,000 pounds of zinc and 950,250 pounds of lead.	